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# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

**JANUARY, 1978**

VOLUME 75, NUMBER 1

MDS

## Scientific Articles

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**120th MSMA Annual Session**
**April 13-16, 1978, Kansas City**

**Anxiety...**
**Often a significant feature of irritable bowel syndrome***

**The action of**
**Librium®**
**(chlordiazepoxide HCl)**

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# Missouri Medicine

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# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**A VOLUNTARY HOSPITAL** cost containment program is being developed by the American Hospital Association, the Federation of American Hospitals and the AMA. A steering committee composed of representatives of national organizations, business groups, labor and consumers will formulate hospital cost-review guidelines. In a joint statement, officials of the AMA, AHA and FAH said: "We believe that voluntary restraint by hospitals and doctors is the most equitable method to achieve effective cost containment consistent with sound medical practice. . . . It is our strong belief that our efforts will be successful . . . that it will then become unnecessary to impose a new, bureaucratic control system that could impair existing efforts to provide better health care for all Americans."

**THE AMA'S 1978** public relations program will emphasize TV appearances by medical spokesmen and speeches before nonmedical audiences and will include an informational and factual advertising campaign. Local implementation of national PR priorities will be stressed. A report of the program has been sent to state, county and specialty medical societies.

**MEDICAL STUDENTS** will get a tax break with the passage of a bill to free their federal scholarship stipends from federal income taxation. The exemption had been urged by the AMA. As adopted by Congress, the bill provides for a two-year exemption. The AMA-proposed legislation would have made the tax exclusion permanent.

**A CONFERENCE ON** the categorization of Hospital Emergency Capabilities, sponsored by the AMA's Commission on Emergency Medical Services and the American Hospital Association, will be held in mid-1978. State and metropolitan medical associations and state hospital associations will be contacted for assistance in gathering categorization material for the meeting.

**ADVERTISING REVENUE** in all AMA journals reached the $10 million mark through October in fiscal year 1977, a 19% increase over the total recorded during the same period last year.

**ALL MEMBERS OF** Congress were offered AMA assistance in responding to inquiries from constituents on health or medical problems. In a letter to each senator and representative, the AMA Washington Office enclosed three AMA health education pamphlets that "are quickly and readily available in bulk if needed." A "Medical Backgrounder," covering AMA policies and positions on health related subjects, is also sent periodically to the lawmakers.

**THE AMA'S COUNCIL** on Medical Education has approved 54 state and territorial medical associations to conduct surveys of organizations and institutions offering continuing medical education at the local level. As of October 21, 1,464 institutions and organizations had been accredited in the U. S.

**ONLY 25%** of foreign medical graduates who took the new Visa Qualifying Exam last fall passed the test, according to the National Board of Medical Examiners. Under the new Health Manpower Act, foreign medical graduates must pass the VQE and an English language proficiency test before receiving either an exchange visitor or immigrant visa. Results showed that foreign physicians tended to perform better on the clinical test than on the basic science test. The examination is given once a year.

**AN AD HOC COMMITTEE** on FMG affairs has been established by the AMA. The seven-member committee will function as a liaison group for foreign medical graduate leadership, counsel AMA staff and develop a program to deal directly with the problems of FMGs in the U. S.

**ON-SITE INTERVIEWS** with physicians in ten major cities are being conducted by the AMA with the cooperation of state and county medical societies. The physicians' opinions about Association activities will be helpful in reassessing current AMA programs and policies, and in short-term and long-range planning.

**THE AMA'S** "Continuing Medical Educational Newsletter," suspended in 1974, is being published again by the Department of Physicians Credentials and Qualifications.

MSMA

NEWS
ROUND - UP

January, 1978

# Legislature considers medical bills

The 1978 Missouri General Assembly opened Jan. 4 and again this year, a number of medically-related bills are being considered. To date, the MSMA is following 48 Senate bills and 53 House bills.

Certificate-of-Need legislation should receive a good deal of attention this year. Senate Bill 507 closely follows federal requirements for limitations on hospital expansion and expenditures. The bill exempts physicians' offices, but allows osteopathic and allopathic hospital facilities to be considered separately.

The malpractice bills have also been introduced. SB 533 allows a judge or jury to reduce a malpractice award by the amount of monies the claimant received from other sources. SB 819 allows the court to extend payment of awards of more than $200,000 over a period of time. And HB 1144 would limit expert witnesses in malpractice suits to physicians from Missouri or contigous states.

Other bills of interest to medicine include:

SB 672, which would add a lay person to the Board of Healing Arts and SB 662, which would change statute language to coincide with the FLEX; SB 637, which would limit a physician's liability in an emergency situation; (HB 1067 and HB 1280 are similar House bills.) SB 600 and HB 1020, which would include "brain death" as a method of declaring a person dead;

HB 1044, which would provide funding for resident programs in outstate hospitals, and SB 805 and HB 884, which provide for state loans to medical students if they agree to practice in an "area of need";

SB 518, which would allow optometrists to use certain topically applied drugs; SB 699, which expands chiropractic practice to include adjunctive therapy and SB 692, which provides for Medicaid payments for chiropractic treatment;

HB 997 and HB 1295, which would legalize the sale of laetrile in Missouri; bills which would license additional health care personnel: SB 535 and HB 970 (Physician's Assistants), SB 593 (Physical Therapy Assistants), HB 1468 (Social Workers) and HB 1506 (Opticians); SB 624 (Physician Advertising);

SB 545, SB 614 and HB 933, which allow substitution of generic drugs for specimen drawing collection and another which establishes an appeals mechanism for providers under Medicaid.

## Resolution deadline for Session is Feb. 27

**MSMA members, County Medical Societies and Student Delegates wishing to introduce resolutions at the 1978 Annual Session of the Missouri State Medical Association are reminded that February 27 is the deadline for insertion of resolutions in the Delegates' Handbook.**

**Any resolution to be introduced after that date must be made available to the House 24 hours before the session in which it is to be introduced. At least 200 copies of the resolution, or funding for same, must be submitted by the sponsor.**

**The same MSMA Bylaw procedure applies for the Second Session, but introduction requires two-thirds approval. At the Final Session unanimous approval is needed for introduction.**

## Council studies progress of new malpractice insurance

A progress report on MOMEDICO, the new member-owned captive professional liability insurance company, received careful consideration at the December meeting of the MSMA Council in Columbia.

Representatives of the Rollins Burdick Hunter Co., the formulators of the insurance plan, stated that hopefully they will be able to write coverage under MOMEDICO by March 1, 1978.

The Council approved a resolution authorizing the various necessary steps to capitalize and form MOMEDICO. It was decided that the 15 members of the Council, plus Dr. I. H. Clark and the Executive Secretary of the MSMA, will serve as the incorporators of MOMEDICO and that the present MSMI Board will serve as a temporary Board of Directors until a permanent Board can be named.

The Council also heard Dr. Rae Froelich's report for the AMA Delegates. Dr. Froelich stated that at the AMA Interim Session in Chicago the House of Delegates revamped the system for specialty society representation. The AMA action eliminates delegates to the House from the 28 section councils and instead enables any specialty society which meets certain criteria to request direct seating of its own delegate.

**Continued on Next Page**

## Council

### Continued

Dr. Froelich suggested that Missouri could be better represented in the AMA if physicians from this state would try to get elected from their own specialty societies.

Mrs. W. Jack Stelmach reported for the Auxiliary and announced that the name of the organization has been changed officially to "MSMA Auxiliary."

The Council approved a 1978 MSMA budget figure of $618,430, or a 27 percent increase over the 1977 budget of $488,010. This large increase is primarily the result of the proposed implementation of Dr. Howard J. McAlhany's "Action Plan," which should make the MSMA more responsive to its members' needs, and which is to be financed through a dues increase of $25 annually.

In discussion, it was suggested that local societies and individuals make voluntary contributions to finance medical students' attendance at MSMA Annual Sessions. The Budget Committee also recommended that increased attendance by MSMA members to the AMA conventions be encouraged.

The Council approved the accreditation of 10 hospitals and organizations to sponsor Continuing Medical Education programs following site team visits by the Association. The institutions are: Missouri Chapter, American College of Surgeons (1 year); St. Francis Hospital, Washington (2 years); North Kansas City Memorial Hospital (1 year); Missouri Baptist Hospital, St. Louis (3 years); Baptist Memorial Hospital, Kansas City (2 years); St. Joseph's Hospital, Kansas City (1 year); Deaconess Hospital, St. Louis (2 years); Kansas City Surgical Society (1 year); Greene County Medical Society (3 years); and Freeman Hospital (3 years).

In other actions, the Council:

- Endorsed HB 1044, which calls for establishment of family practice residency programs in community hospitals throughout Missouri in an effort to increase the number of physicians in the state.
- Endorsed the AMA's position on podiatrists, which is that the individual hospital should make its own decision on staff privileges for podiatrists.
- Approved an opinions survey to provide the MSMA with the attitudes of the people of Missouri toward medicine, so a viable public relations program can be initiated.
- Approved a motion encouraging Councilors to attend at their own expense the AMA annual meeting in June, 1978, in St. Louis.
- Approved the report of the Legislative Committee on the bills which have been pre-filed for the upcoming General Assembly.
- Selected November 4-5, 1978, as the dates to hold the Interim Session of the House of Delegates at the Ramada Inn in Cape Girardeau.

## *Physicians requested to report influenza*

**Physicians are requested to report to local or state public health officials unusual increases in the number of patients with febrile upper respiratory infections. According to the Missouri Division of Health, these reports serve as one of the major indicators of influenza activity.**

## AMA House takes action on Missouri resolutions

At the meeting of the American Medical Association in Chicago, the AMA House of Delegates took action on two resolutions submitted by the MSMA.

The Missouri AMA delegation introduced a resolution concerning insurance for psychiatric care. It states:

*"That the American Medical Association go on record as supporting insurance coverage for psychiatric care on a parity with general medical, surgical, and obstetrical services."*

The AMA House referred this resolution to the Board of Trustees for additional study and a report back to the House of Delegates.

The House also adopted a report of the Board of Trustees, which was the result of a resolution introduced by the Missouri delegation at the AMA meeting in June, 1977.

The Report deals with the Health Professions Educational Assistance Act of 1976, which requires medical schools to accept as transfers U.S. citizens in foreign medical schools as a condition of receiving capitation funds.

The Report states that two draft bills were prepared by the Council on Legislation:

1) One bill would eliminate the capitation requirement completely and expand the special grant program aimed at encouraging schools to accept U.S. citizen transfers from foreign schools.

2) The other bill amends the guaranteed loan provision to eliminate the requirement that a school qualify for capitation funds as a condition of its students being eligible for the new guaranteed loan program.

Upon the Reference Committee's recommendation that the Report carries out the request of the resolution introduced by Missouri, the AMA House voted to adopt it.

Complete coverage of the actions by the AMA House were published in the Dec. 12 edition of *AM News.*

## Medical school enrollment is increasing

The total enrollment in the 116 U.S. medical schools in 1976-77 was 58,266, an increase of 2,022 over the previous year, says the American Medical Association's 77th annual report on medical education.

First-year enrollment increased from 15,351 in 1975-76 to 15,667 in 1976-77. The new students were selected from 42,155 applicants, a decline from the peak of 42,624 in 1974-75.

The number of graduates in 1976-77 increased from 13,561 to 13,067. Medical schools project that by 1981-82, the first-year class will consist of more than 16,000 students, with more than 16,000 graduates each year.

The total number of women enrolled in 1976-77 was 13,059, an increase of 1,532 over the previous year. Ethnic minorities totalled 4,841, an increase of 8.2 percent. And 494 U.S. students in foreign medical schools managed to transfer to American schools with advanced standing at various levels.

In the 116 medical schools, there was a total of 41,394 full-time faculty members in 1976-77, a ratio of 1 teacher for each 1.4 students. Family medicine is now offered as a distinct discipline in 102 of these schools.

In the area of continuing education for physicians, 59,067 doctors had earned the AMA's Physician's Recognition Award by Jan. 1, 1977.

# Malpractice panels need physicians to serve

The malpractice pre-trial review hearings established under a law passed two years ago are working.....but their future success depends on the willingness of Missouri physicians to serve on the panels.

"If you are asked to serve on a panel, do so," says Dr. Howard J. McAlhany, MSMA President. "It is the medical profession's responsibility to insure that this law works. We demanded its passage by the Legislature to reduce malpractice costs. Now we must do our part by serving on the panels."

More than 400 claims have been filed before the Missouri Professional Liability Review Board. Thirteen claims have been either settled or withdrawn prior to any hearing. Fifteen hearings have been completed and 150 claims are set for hearing.

The system is in full gear now. Missouri Supreme Court Chief Justice J. P. Morgan assigned two very competent circuit court judges to the first two hearings in late September. He studied the comments of those two judges before allowing more judges to be assigned. His concern and caution are the reasons more cases have not been heard to date, but that caution has paid off in that the study conducted on the first two cases has produced a smoothly operating procedure for the hearing panels to follow.

The Board is not without problems, however. A number of factors have combined to make it difficult in some cases for the Board to obtain a physician to serve on a panel. A list provided by the Board of Healing Arts contained names of physicians who are deceased, retired or have moved from the state. Ron Kennedy, Executive Secretary of the Professional Liability Review Board, and Gary Clark, Executive Secretary of the Board of Healing Arts, are working on this problem.

The law requires a physician of the same specialty as the defendant physician to be on the panel. The Board is using the AMA designation of specialties, 70 in number. Some specialties include few physicians, according to the Board of Healing Arts list. The emergency medical physician list contains two names; occupational medicine has seven. As another example, obstetrics has two names, gynecology has only 12 names, while there are many more names listed under obstetrics-gynecology.

Kennedy is concerned that if complete cooperation is not offered by the medical profession the Board may break down. Physicians were notified that their names were chosen for service on the Board in time for any objections to be made known. At times, notifications had to be sent to four or five physicians before a physician could be found to serve on a particular panel. The statute requires that the physicians be called in the order they appear on the list so a physician will be called again soon if he declines to serve. There is concern that in specialties, such as orthopaedic surgery, if all physicians will not serve their turn then one or two will be forced to serve more than their share of time. The Board has at one time or another experienced difficulty in reaching an orthopaedic surgeon, a general surgeon and an OB-GYN specialist. One physician asked to be given three months notice and stated that he could only serve on Wednesday. The statute requires a hearing within 90 days. (This 90 day requirement is obviously not possible until the backlog is eliminated in June or July of 1978.)

Kennedy stated that he does not consider physician refusals a major problem at this time. He wants the MSMA to be aware of it, however, because it could ultimately determine whether the Board is considered fair and successful. The Board is being closely monitored by both the state Supreme Court and the Office of the Attorney General, as well as the news media.

Some of the comments of the attorneys who participated in the first cases are both interesting and encouraging. A plaintiff's attorney found that the testimony of the defendant physician filled in many gaps in the picture he had of the incident in question. That attorney chose not to represent the client further after a finding of "no liability" was made. He predicts 30 to 50 percent of the cases will drop out on the hearing level.

The statute regarding the Professional Liability Review Board is now under constitutional challenge by some St. Louis County attorneys.

# MSMA prepares non-member campaign

Did you know there are almost 2,500 physicians in Missouri who are not members of medical societies? Organized medicine needs their support.

In order to encourage these non-members to participate, the MSMA has prepared an information packet for each of the physicians.

The packet contains a letter of invitation to join from Howard J. McAlhany, M.D., President of the MSMA, a new Benefits and Services Brochure, a membership application form and a return envelope. In addition, the AMA has included a letter from the AMA President and a informational sheet on the national organization.

The final step in the solicitation is up to the local medical societies. After the packets have been addressed and mailed to them in bulk, the local societies will send the material to all of the physicians they would like to belong to their societies.

The MSMA hopes this project will attract new members and provide added strength for the Association.

## Red Cross makes policy change

The Missouri-Illinois Regional Red Cross Program has made a policy change regarding therapeutic phlebotomy.

Upon recommendation of the Medical Advisory Committee, the Program discontinued therapeutic phlebotomy on December 31, 1977.

In letters announcing this change to physicians who have used the service over the past 2 1/2 years, William V. Miller, M.D., Director of the St. Louis based program, explained that Federal regulations require the diagnosis to be placed on the label of all units from donors who are treated by phlebotomy. Reluctance of clinicians to use these identified units for transfusion caused total loss by outdating and led to the decision that these bloods would not be issued.

Even more important, however, was the increasing number of patient/donors whose physical condition might require emergency care that could not be provided in the Blood Center, let alone on mobile sites throughout the region.

To minimize any inconveniences, the Red Cross can provide at cost suitable collection bags to physicians desiring to perform therapeutic phlebotomy in their offices. Arrangements also can be made to instruct personnel from physicians offices or participating hospitals in phlebotomy technic.

## Establishing Yourself in Practice Workshop scheduled

An "Establishing Yourself in Medical Practice Workshop" will be held May 11 and 12, 1978, at the Breckenridge Inn in St. Louis.

The two-day program, co-sponsored by the MSMA and the AMA, is designed for residents and other physicians about to establish themselves in private practice. It provides them with essential information about the business aspects of setting up and operating a medical practice.

Limited to 27 participants to allow group discussion, the workshops are conducted by Conomikes Associates, Inc., a professional consulting practice management firm.

The registration fee is $95 for members of component societies and the MSMA. For non-members, registration is $125. Included in the fee is a comprehensive workbook, which can be used later as an "office manual," and two luncheons.

The program begins each day at 8:30 a.m. and concludes at 5 p.m.

A variety of subjects will be covered at the Workshop:

1. PERSONNEL
   - A. Job descriptions - Recruiting & interviewing
   - B. Training & evaluation
   - C. Setting policies & procedures
   - D. Task analysis & delegation
2. PATIENT FLOW TECHNIQUES
   - A. Systematizing the telephone
   - B. Appointment scheduling
3. PHYSICAL ASPECTS OF THE MEDICAL OFFICE
   - A. Internal set-up & equipment
   - B. Financing your office
4. PAPERWORK
   - A. Clinical - filing techniques - medical records
   - B. Financial - billing - collection - insurance
5. PRACTICE SETTING
   - A. Choosing type of practice - location
   - B. Relationships with hospitals, colleagues, community and professional societies
6. LEGAL PROBLEMS
   - A. Economic controls - Pensions - Keogh - Tax problems
   - B. Informed consent
   - C. Reciprocity
   - D. Professional corporations

For further information, please clip the accompanying box and mail it to the MSMA, Box 1028, Jefferson City, MO 65101. If you wish to enroll at this time, please include a check.

Establishing Yourself in Medical Practice Workshop

Please send additional information on the "Establishing Yourself in Medical Practice Workshop," May 11 and 12, 1978, at Breckenridge Inn, St. Louis, to:

Name ______________________

Address ______________________

City ______________________

# News in brief

## Dr. Sisk is appointed

*James C. Sisk, M.D., St. Louis, a delegate to the AMA, recently has been appointed to serve on the AMA Ad Hoc Committee on Health Planning. This committee is under the Council on Medical Services.*

## Telephone cancer service

A toll free cancer education service is being offered to physicians in 17 states, including Missouri, by the Southern Medical Association and the University of Texas System Cancer Center, M.D. Anderson Hospital and Tumor Institute.

Known as Dial Access, this system provides telephone access to tape cartridge players carrying about 350 narrations authored by physicians from the Southern Medical Association and the M.D. Anderson staff who have expertise in the management of various types of cancer.

The system is simple — the physician calls an "800" number, tells the operator the number of the tape he wishes to hear, and the operator plays it for him over the phone.

If you would like a free catalog, write to:

*Southern Medical Association*
*Cancer Information Center*
*2601 Highland Avenue*
*Birmingham, Alabama 35205*

## Medicare deductible increases

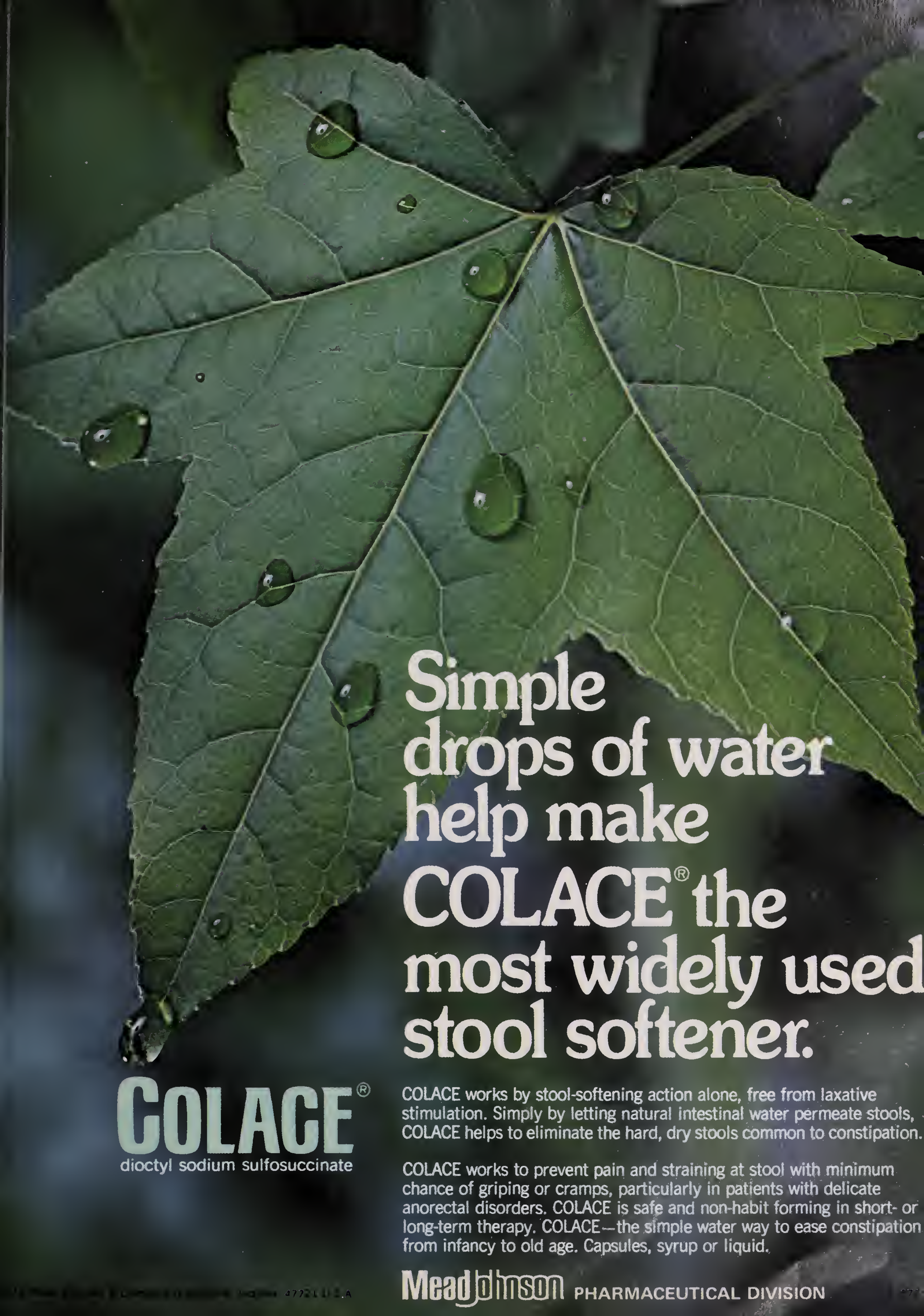
The Department of Health, Education and Welfare has announced that the inpatient hospital deductible under Part A of Medicare is increased from $124 to $144 for benefit periods beginning in 1978. And speaking of HEW, Secretary Califano said over $2 billion in Medicaid funds was wasted last year by government mismanagement, not provider abuse.

## New hospital data system

The MSMA, Missouri Hospital Association, the Division of Health and several other organizations have joined together to develop a statewide hospital abstract service which will satisfy Missouri hospitals and data users.

This system, called the Missouri Health Data Corporation (MHDC), has been endorsed by the Missouri State Medical Association and will collect, process and distribute hospital discharge data. The MHDC meets the reporting requirements of the Division of Health, PSRO's and other agencies and also provides reports for hospital management and patient care. It is a non-profit, non-governmental data collection agency, which recognizes the concern hospitals have for confidentiality and yet provides data for legitimate users.

With this new system, there is no longer a need for the Division of Health to operate its system, MHDDS. Therefore, MHDDS will not be offered after June 30, 1978. It has been recommended to Missouri hospitals that they consider converting to the MHDC system on January 1, 1978, July 1, 1978, or at the beginning of their fiscal year.



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## Vasodilan–compatible with coexisting diseases (e.g., glaucoma, diabetes)

Vasodilan has not been reported to affect the course of coexisting disease; it has not been reported to affect blood sugar levels or to raise intraocular pressure.

## Vasodilan–compatible with concomitant therapy

Vasodilan has not been reported to affect the treatment of coexisting disease; it is compatible with such drugs as hypoglycemics and miotics.

## Vasodilan–compatible with your total regimen for vascular insufficiency

Vasodilan can be a valuable adjunct in planning a total therapeutic program for vascular insufficiency.

***Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

**Composition:** Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg. Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

**Dosage and Administration:** Oral: 10 to 20 mg., three or four times daily. Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

**Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

**Adverse Reactions:** On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

**Supplied:** Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

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**20 mg q.i.d. recommended dosage**

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**Indications:** For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.
**Dosage:** Initial: Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours, children 8-12: 1 tablespoonful or one capsule every 6-8 hours and children under 8: 3 to 5 mg theophylline/kg body weight every 6-8 hours. Theophylline dosage may be cautiously increased to 2000 mg/24 hr in adults or 7 mg/kg in children; monitoring of serum theophylline levels at higher dosages is recommended.
**Precautions:** Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.
**Adverse Reactions:** Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20$\mu$g/ml.
**How Supplied:** Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

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### Preliminary Program
### 120th Annual Session

# MISSOURI STATE MEDICAL ASSOCIATION

**Crown Center Hotel, Kansas City** **April 13-16, 1978**

### Thursday, April 13

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
3:00 PM Reference Committee Meetings.
6:30 PM Missouri State Surgical Society Dinner and Board Meeting.
7:00 PM Cash Bar and Dinner, American Medical Women's Association.

### Friday, April 14

8:00 AM Registration.
8:30 AM Missouri University Alumni Board of Governors Breakfast Meeting.
9:00 AM General Session—*PSRO.*
Introductions: Howard J. McAlhany, M.D., Springfield, MSMA President.
Speakers: Robert B. Hunter, M.D., Sedro Woolley, Wash., Chairman, AMA Board of Trustees.
Michael J. Goran, M.D., Rockville, Md., Director, Bureau of Quality Assurance, Health Care Financing Administration.

9:00 AM *Important Topics in Infectious Diseases.*
*Host Resistance, the Forgotten Hero,* Daniel J. Stechschulte, M.D., Professor of Medicine, Director, Division of Allergy, Clinical Immunology and Rheumatology, University of Kansas Medical Center, Kansas City, Kan.
Moderator: Donald Youll, M.D., Kansas City, President, Missouri State Allergy Association.
*Antibiotics—When, Why and How Much,* E. Dale Everett, M.D., Professor of Medicine, Chief, Division of Infectious Diseases, University of Missouri-Columbia.
Moderator: Daniel Hurst, M.D., Columbia, President, Missouri Thoracic Society.
*The Annual Charles Brasher Lecture: Tuberculosis—State of the Art,* Ray G. Cowley, M.D., Director, Missouri State Chest Hospital, Clinical Professor of Medicine, University of Missouri-Columbia.
Moderator: Daniel Hurst, M.D., Columbia.
Co-Sponsored by the Missouri State Allergy Association, Missouri Thoracic Society and the Missouri Chapter, American Academy of Pediatrics.

9:30 AM *Training Session on Cardiac Pulmonary Resusitation.*
Sponsored by the Missouri Heart Association, Inc.

10:30 AM **Intermission to View Exhibits.**

11:00 AM *Improved Survival With Combination Therapy for Small Cell Lung Cancer,* Ben J. Throne, M.D., Kansas City.
*Carcinogens in Our Life—Fact or Fiction,* Donald R. German, M.D., Kansas City.
Sponsored by the American Cancer Society, Missouri Division, Inc.

11:00 AM *The Medical and Surgical Management of the Rheumatoid Arthritic Patient.*
Sponsored by the Missouri Orthopaedic Association.

11:30 AM Program Sponsored by the Missouri Society of Pathologists.

11:00 AM *The Basic Physiology of Fluid and Electrolytes in the Surgical Patient,* Andrew McCanse, M.D., Kansas City.
Sponsored by the Missouri State Surgical Society.

12:30 PM Missouri University Alumni Luncheon.
Missouri Thoracic Society Luncheon.

1:00 PM *Training Session on Cardiac Pulmonary Resusitation* (Continued).
Sponsored by the Missouri Heart Association, Inc.

1:00 PM Program Sponsored by the Tri-State Conference for the Emergency Room Physicians.
Speakers: Allen Klippel, M.D., Omaha, Neb.
Joe Waeckerle, M.D., Kansas City.
R. R. Hannas, Jr., M.D., Kansas City.

1:00 PM *Impaired Physicians and Their Family,* H. James Lurie, M.D., Department of Psychiatry, University of Washington School of Medicine, Seattle, Wash.
Sponsored by Missouri Psychiatric Association and the MSMA Auxiliary.

2:00 PM *Important Topics in Infectious Diseases* (Continued).
*Viral Diseases of Special Interest,* Lloyd C. Olson, M.D., Associate Professor of Pediatrics, University of Missouri-Kansas City.
Moderator: Donald Youll, M.D., Kansas City.
*Diagnosis and Treatment of Childhood Pneumonias,* Michael Cooperstock, M.D., Assistant Professor of Child Health, University of Missouri-Columbia.

Moderator: Donald Thurston, M.D., Chairman, Missouri Division, American Academy of Pediatrics.
Sponsored by the Missouri State Allergy Association, Missouri Thoracic Society and the Missouri Chapter, American Academy of Pediatrics.

2:00 PM *The Practical, Clinical and Usefulness of Diagnostic Echocardiography,* Richard E. Kerber, M.D., Associate Professor of Medicine and Director of Cardiovascular Non-Invasive Diagnostic Laboratory, University of Iowa College of Medicine, Iowa City, Ia.
*Cardiovascular Nuclear Medicine,* Kenneth A. McKusick, M.D., Clinical Director of Nuclear Medicine, Massachusetts General Hospital, Boston, Mass.
Sponsored by Missouri Heart Association, Inc.

2:00 PM *Interpretation of Blood Gases and Ventilators in the Surgical Patient,* Scott McCord, M.D., University of Missouri-Columbia.
Sponsored by the Missouri State Surgical Society.

3:30 PM **Intermission to View Exhibits.**

3:30 PM Missouri State Surgical Society Business Meeting.

3:30 PM Missouri State Medical Foundation Board Meeting.

4:00 PM **House of Delegates, second session.**

4:30 PM Missouri State Allergy Association Business Meeting.

4:30 PM Missouri Thoracic Society Business Meeting.

6:00 PM **Reference Committee Meetings.**

6:30 PM Dinner Meetings: Missouri Society of Pathologists.
Missouri Psychiatric Association.
Missouri State Surgical Society.

7:00 PM Dinner Meeting, Missouri State Allergy Association.

### Saturday, April 15

7:30 AM **MSMA Auxiliary Public Affairs Breakfast.**

8:00 AM Registration.

9:00 AM *Discuss the Issues with Your AMA Delegates.* (Missouri's AMA Delegates and Alternates will be available for an open forum-type discussion.)

9:00 AM *Herpes Simplex Virus Ocular Infection, Antiviral Topical Therapy,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, Pa.
Sponsored by Missouri Ophthalmological Society.

9:00 AM Program Sponsored by the Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists.

9:00 AM *Cardiac Rehabilitation,* Frederic Kottke, M.D., Chairman, Physical Medicine and Rehabilitation, University of Minnesota, Minneapolis, Minn.
*Geriatric Fitness Exercise Programs,* Wayne Osness, Ph.D.
*The Management of the Geriatric and Middle-Aged Amputee,* Ken Hu, M.D., St. Louis.
Sponsored by Physical Medicine and Rehabilitation.

9:00 AM *Respiratory Problems in the Surgical Patient,* John Collins, M.D., Chairman, Department of Surgery, Stanford University, Stanford, Calif.
Sponsored by the Missouri State Surgical Society.

9:00 AM *Brain Stem Audiometry*
*Current Status Cochlear Implants.*
*Ossicular Problems.*
*Experience with the Ossicular Prosthesis.*
Speaker: Derald E. Brackmann, M.D., Otologic Medical Group, Ear Research Institution, Los Angeles, Calif.
Sponsored by the Missouri Ear, Nose and Throat Association.

10:00 AM Program Sponsored by the Missouri Dermatological Society.
Speaker: Loren Golitz, M.D., Chief of Dermatology, Denver General Hospital, Denver, Colo.

10:30 AM **Intermission to View Exhibits.**

11:00 AM *Special Family Problems, Parents and Children,* Beverley T. Mead, M.D., Professor and Chairman, Department of Psychiatry, Creighton University, Omaha, Neb.
Moderator: William C. Allen, M.D., Columbia.
Sponsored by the Missouri Academy of Family Physicians.

11:00 AM Program sponsored by the Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists.

11:00 AM *Continuing Medical Education and the Missouri Surgeon—Boyd Terry, M.D.,* University of Missouri-Columbia.
Sponsored by the Missouri State Surgical Society.

11:00 AM Speakers: *Percutaneous Cordotomy,* August A. Geise, M.D., St. Louis.
*Radiofrequency Trigeminal Rhizotomy,* George Mendelsohn, M.D., St. Louis.
*Hypophysectomy for Cancer Pain,* Charles A. Clough, M.D., Kansas City.
*The Future in Pain Management,* Clark Watts, M.D., Columbia.

Moderator: C. Keith Whittaker, M.D., Kansas City.
Sponsored by the Missouri Society of Neurosurgeons.

11:00 AM *Corneal Edema After Cataract Surgery,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, Pa.
Sponsored by the Missouri Ophthalmological Society.

11:00 AM Panel Discussion on *Application of the Total Hip Replacement for Salvage of the Previously Operated Hip.*
Sponsored by the Missouri Orthopaedic Association.

12:30 PM **Fifty-Year Club Luncheon.**
Missouri Society of Neurosurgeons Luncheon.
Missouri OB-GYN Society and American College of Obstetricians and Gynecologists Luncheon.
Missouri Ophthalmological Society, Inc. Luncheon.
Physical Medicine and Rehabilitation Luncheon.

1:30 PM *Contrast Agents in Urography,* William H. McAlister, M.D., Professor of Radiology, Mallinckrodt Institute of Radiology, St. Louis.
*Radiation Therapy of Lung Cancer,* MacDonald B. Logie, M.D., Assistant Professor of Radiology, Mallinckrodt Institute of Radiology, St. Louis.
*Noninvasive Studies of the Heart Related to Isotopes,* Donald R. Germann, M.D., Professor of Radiology, St. Luke's Hospital, Kansas City.
Sponsored by the Missouri Radiological Society.

1:30 PM Program on *Dermatology*
Speaker: Loren Golitz, M.D., Chief of Dermatology, Denver General Hospital, Denver, Colo.
Followed by Panel Discussion on *"How I Treat Common Dermatoses Kodachrome."*
Sponsored by the Missouri Dermatological Society.

2:00 PM *Special Family Problems, Adult Members.*
Beverley T. Mead, M.D., Professor and Chairman, Department of Psychiatry, Creighton University, Omaha, Neb.
Sponsored by the Missouri Academy of Family Physicians.

2:00 PM *Current Concepts of Recurrent Corneal Erosion,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, PA.
Sponsored by the Missouri Ophthalmological Society, Inc.

3:30 PM **Intermission to View Exhibits.**

5:00 PM Missouri University Medical Alumni Cocktail Party.
St. Louis University Medical Alumni Cocktail Party.
Washington University Medical Alumni Cocktail Party.

6:30 PM **Social Hour for Those Attending Annual Banquet.**

7:15 PM **Annual Banquet in Honor of MSMA Past-Presidents.**

Sunday, April 17

7:30 AM **House of** Delegates Meeting, Breakfast and Final Session.

## *Welcome, New Members!*

# 120th ANNUAL SESSION

of the Missouri State Medical Association

April 13-16, 1978 Crown Center Hotel Kansas City

Take advantage of this opportunity to meet with other Missouri physicians, exchange views and influence decisions important to the medical profession and health care.

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Special Article

# An Outline of the History of Cancer

## *Part II*

**CARL G. KARDINAL, M.D.,** ***Columbia***

D. *The Birth of Anatomic Pathology* (1761-1838)
   1. *Giovanni Battista Morgagni* (1682-1771)
      a. In 1761, published a monumental text entitled *On the Sites and Causes of Disease* based upon correlating autopsy findings with clinical records in 700 cases.
      b. Described cancer of the lung, esophagus, stomach, rectum and uterus.
      c. Differentiated malignant neoplasms from benign swellings such as aneurisms, struma, gumma and exostoses.
      d. Did not comprehend the process of metastasis. Described a case with cancer in the stomach and noted tumor in the liver, but did not make the correlation.
   2. *Henri Francois le Dran* (1685-1770)
      a. After studying autopsies, he regarded cancer in its early stages as a local disease.
      b. Described spread via lymphatics to regional nodes.
      c. Felt that if a drop of "cancer lymph" passed the adjacent nodes, it contaminated the entire system.
      d. Realized that the only hope for cure was early surgery.
      e. Dissected enlarged nodes in breast cancer, but felt that when the nodes were involved, the hope for cure was slight.
   3. *Bernard Peyrilhe* (1735-1804)
      a. Related scirrhus to early cancer.
      b. Advocated removal of axillary nodes and the pectoralis major for treatment of breast cancer.
      c. Won the Lyon Academy of Science Award in 1774 for the first animal experiment in cancer. He injected an extract of human breast cancer into a dog. The dog developed an abscess, howled and was drowned by his housekeeper.
   4. *Joseph Recamier* (1774-1852)
      a. Described invasion of veins and direct infiltration of normal tissue by cancer.
      b. The first to use the term *metastasis* in reference to a case of breast cancer with a secondary tumor in the brain.
      c. Felt that cancerous tissue was not subject to the control normally exerted by the organism over normal tissues.
   5. *René Laennec* (1781-1826)
      a. Described malignant melanoma.
      b. On the basis of gross pathologic findings, differentiated tuberculosis from cancer of the lung.
   6. *Adam Elias von Siebold* (1775-1826)
      a. Believed uterine cancer to be more frequent in women with frequent pregnancies, difficult labor or leukorrhea.
      b. Venery and reading romances also predisposed one to uterine cancer.
      c. Regarded uterine cancer as hopeless and recommended no treatment other than cleansing douches.
   7. *Thomas Hodgkin* (1798-1866) described seven cases of lymphogranuloma malignum in 1833.
   8. *Early Cancer Epidemiology*
      a. *Percivall Pott* (1714-1788) described scrotal cancer in chimney sweeps in 1775.
      b. *John Ayrtor Paris* (1785-1856) described arsenic-induced cancer of the skin and scrotum of smelter workers in 1822.

E. *The Birth of Microscopic Pathology* (1838-1900)
   1. *Johannes Müller* (1801-1858)
      a. Published a monumental treatise on cellular pathology in 1838. It established that cancers were made of cells, not coagulated lymph.
      b. Did not note any special characteristics of malignant cells, but felt that cancers could be identified by the proportions and grouping of cells and stroma.
      c. Felt that cancer did not arise from normal tissue but by a process of budding from separate germinal elements scattered between normal tissue components termed

the "seminium morbi" or the "blastema"; the Blastema Theory.

2. The *Blastema Theory* of the origin of cancer gained many supporters and supplanted the lymph theory.
   a. *Julius Vogel*
      (1) In 1845, proposed that tumors develop from an amorphous cytoblastema and become organized into cells under the specific influence of their histologic and chemical milieu.
      (2) Felt that each tissue had its corresponding blastema and termed this "the Law of Analogous Blastemas."
   b. *Friedrich Führer* in 1852 distinguished three specific blastemas (albuminous, chondromatous and gelatinous), each of which was responsible for a specific tumor.
   c. *Rokitansky* in 1846 published a paper in support of the Blastema Theory, but he felt that cancer was a constitutional disorder and the blastema resulted in a predisposition to the development of cancer or a "cancer diathesis or dyscrasia."
3. *Hermann Lebert* in 1845 and *Adolph Hannover* in 1852 described unique cancer cells. Tumors which contained these cells were "true cancer" and those, such as epitheliomas, that did not were "pseudocancers" or "cancroids."
4. *Carl Bruch* in 1847 described the characteristic features of the malignant cell and especially the characteristics of the cell nucleus. He also noted abnormal cell division.
5. *Henri-Marie Delafond* in 1855 established that there is no specific or pathognomonic cancer cell and the distinction between cancer and cancroid is not valid.
6. *Rudolph Virchow* (1821-1902)
   a. Considered to be the greatest figure in the history of pathology.
   b. A student of Müller and a contemporary of Thiersch, Remak and Waldeyer.
   c. Described leukemia in 1845 at the age of 24.
   d. Establish *Virchow's Arch Path Anat* in 1847 at the age of 26.
   e. Published a monumental work *Die Cellular Pathologie* in 1858.
      (1) Established the cell as the fundamental unit in which disease processes operate.
      (2) "Omnis cellular e cellula" (all cells arise from cells, not from an amorphous blastema).
   f. Proposed a general theory for the generation of neoplastic tissue in 1858:
      (1) There is a constitutional or hereditary predisposition.
      (2) The cancer is then induced by chronic irritants.
      (3) The specific nature of the cancer relates to the type of irritant effect as well as the predisposition of the tumor to this effect.
      (4) Chronic irritation produces granulation tissue which, like embryonal tissue, is undifferentiated and may form a tumor.
   g. Published *Die Krankhaften Geschwülste,* a treatise on tumors, in 1863.
      (1) All tumors are of two types:
         (a) "Homologous" which arise from a proliferation of normal cells and are benign.
         (b) "Heterologous" which arise as a result of a metaplastic change in the character of the cells and are malignant.
      (2) All malignant tumors, including carcinoma, arise heterologously from connective tissue.
      (3) Because of Virchow's authority, the theory of the connective tissue origin

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**The history of cancer is as old as the history of medicine itself. Tumors were recognized and treated during the classic civilizations of ancient Egypt, Greece and Rome. Multiple etiologic theories and treatments emerged over the centuries. Many of these were mystical and illogical, but there was a slow progression of scientific knowledge. The author has utilized an outline format to present an extensive collection of material.**

**Since space limitations preclude publication of this article in a single issue, it has been divided into three segments.**

**Dr. Kardinal is Director of Internal Medicine, Ellis Fischel State Cancer Hospital and Cancer Research Center. This investigation was supported in part by Cancer and Leukemia Group B Grant CA 12046 from the National Cancer Institute, DHEW.**

of carcinoma was not easily overthrown.

7. *Remak,* a colleague of Virchow's, immediately challenged the connective tissue origin of carcinoma with data supporting its epithelial origin, but he was ignored.
8. *Carl Thiersch* (1822-1895)
   a. In 1865, demonstrated by serial sections that carcinoma of the skin arose from epithelium, not connective tissue. This work was not accepted because of Virchow's authority.
   b. Proposed that cancers developed because of a *senile predisposition.* With advancing age, the connective tissue ceased to be able to hold the epithelium in check and the epithelium thus invaded the connective tissue, resulting in cancer. (A disturbance in the epithelial/connective tissue equilibrium.)
9. *Heinrich Wilhelm Gottfried Waldeyer-Hartz* (1836-1921)
   a. Confirmed the work of Thiersch in 1867 and established the epithelial origin of both adenocarcinoma and squamous cell carcinoma.
   b. Secondary growths are the offspring of transplanted cells, not a transformation of the tissue in which they develop.
   c. Felt there are only two mechanisms for metastases:
      (1) Direct extension by contiguity,
      (2) Tumor emboli through blood or lymph passages.
10. *Sir James Paget* (1814-1899)
    a. Published "On Disease of the Mammary Areola Preceding Cancer of the Mammary Gland" in 1874.
    b. Proposed the *Constitutional Theory* of cancer in 1887. Two coexisting conditions are necessary to the production of cancer.
       (1) A specific morbid material which is disseminated through the vascular system.
       (2) A hereditary or constitutional predisposition towards reception of the neoplastic impetus.
11. *Julius Friedrich Cohnheim* (1839-1884) and *The Embryonal Theory of the Origin of Cancer*
    a. Proposed in 1874 that tumors develop from masses of simple or complex tissue misplaced during embryonal development,
    b. Or they arise from small groups of superfluous cells which have retained embryonal characteristics but are not necessarily misplaced.
    c. These cells are either distributed throughout the viscera or gathered at certain points such as mucocutaneous junctions.
    d. The sudden development of the embryonal cells to neoplasms results from changes of blood supply.
    e. These cells are capable of new growth by virtue of the "bioplastic energy" they contain.
    f. Conheim's theory remains of interest, especially with the demonstration of oncofetoproteins in adult tumors such as fetoprotein in hepatoma and carcinoembryonic antigen in colon cancer.
12. *Hugo Moritz Ribbert* (1855-1930) and the *Mechanical Isolation Theory*
    a. Ribbert basically supported the embryonal theory, but he did not think it was adequate to explain all tumors.
    b. Proposed in 1896 that cancer cells have no unusual powers of proliferation; they have just been freed from the restraints of "tissue tension" by mechanical isolation.
    c. Trauma isolates predisposed epithelial cell groups by newly formed connective tissue.
    d. The isolated cells have been altered and their growth tendencies increased by previous irritation.
    e. Mechanical isolation of cells by trauma was felt to be an established cause of cancer until the 1920s despite the failure to induce animal tumors by trauma.
    f. Carcinomas are produced by multiple small injuries (chronic irritation), but sarcoma may develop after a single blow.
    g. The medicolegal aspects of the traumatic origin of tumors are obvious and European law in the early 1900s recognized this for workman's compensation purposes.
13. *The Role of Heredity of Cancer*
    a. Cancer families.
       (1) Warren in 1837 described a family with six members each having cancers of various types.
       (2) Broca in 1866 described the family of Madame Z in which 16 of 26 members died of breast, liver or uterine cancer.
    b. Newton in 1902 described a family in

which ten of 16 children developed retinoblastoma.

c. By 1900, the increased incidence of breast cancer in the families of patients with breast cancer was well recognized.

14. *The Parasitic Theory of Cancer*
   a. In the 17th and 18th centuries, cancer was felt to be as contagious as phthsis, but it was not until the development of microbiology in the late 19th century that the parasitic theory of cancer gained support.
   b. *Justamond* in 1870 ascribed cancer to the germina of insects taken from the air by lymph vessels and described these insects (their length, breadth, and color).
   c. *Arnaudet* in 1889 observed a high cancer rate in Normandy as well as the occurrence in several members of a household. Concluded that cancer was transmitted by contaminated water.
   d. *Behla* in 1892 noted that cancer families consume large quantities of home grown vegetables and felt that cancer was transmitted through contaminated soil.
   e. *Haviland* in 1892 derived data from the English census that cancer is a disease of low-lying areas that are seasonly flooded and where the subsoil is constantly moist.
   f. *Nason* in 1898 noted that cancer developed in homes with defective plumbing.
   g. *Lloyd Jones* in 1899 noted that cancer patients lived in close proximity to trees, especially large trees.
   h. With the advent of microbiology, each new class of microorganism in turn was isolated from neoplastic tissue; many were grown in pure culture and some were claimed to reproduce the disease upon inoculation.
      (1) *Scheurlen* in 1887 isolated a bacillus from breast cancer and claimed to induce tumors in dogs.
      (2) *Thoma* in 1888 and *Sjobring* in 1890 described intranuclear coccidia which they felt were the true cause of cancer.
      (3) Koroteneff in 1893 described the protozoan *Rhopalocephalus carcinomatosus.*
      (4) Eisen described *Carcriamoeba macroglossa.*
      (5) *Reginald Harrison* (1838-1908) in 1889 described the increased incidence of bladder cancer in Egyptians infected with Bilharzia. This remains as the only human tumor documented to be associated with a parasite.

F. *19th Century Cancer Surgery*

1. Two events in the 19th century greatly influenced the development of surgery:
   a. *William T. G. Morton,* a Boston dentist, introduced ether anesthesia in 1846.
   b. *Lord Joseph Jackson Lister* demonstrated the importance of antiseptic technique in 1867.
2. Prior to these two events, surgery was extremely hazardous but, nevertheless, attempted.
   a. *Ephraim McDowell* removed a 22-pound cystic ovarian tumor from a patient in his home in 1809. The patient, who sang hymns during the 25 minute operation, survived 30 years.
   b. *Jacques L. Lisfranc* (1790-1847) described the perineal excision of rectal cancer in 1833.
   c. *Jean Francois Reybard* (1790-1863) performed a sigmoid resection in 1833. The patient survived six months and died of recurrence.
3. *Charles Hewitt Moore* (1821-1870)
   a. Demonstrated that cutaneous recurrence in breast cancer was due to inadequate primary surgery and not the development of a new tumor.
   b. "The whole dissection is to be done in one piece without cutting into or seeing the tumor itself."
   c. His work was published in 1867, almost 25 years before Halsted.
4. *Christian Albert Theodor Billroth* (1829-1894)
   a. The first true giant in cancer surgery.
   b. His career spanned the exciting period of the evolution of microscopic pathology, antiseptic surgery and anesthesia.
   c. Did the first laryngectomy in 1874, the first cystectomy in 1875 and the first pyloric resection in 1881.
   d. Had a deep interest in music and was a personal friend of Johannes Brahms.
5. *William Stewart Halsted* (1852-1922)
   In 1891 described the radical mastectomy which was the standard operation for breast cancer for 75 years.
6. *Edward André Quénu* and *H. Hartman* de-

scribed the abdominal-perineal resection for rectal cancer in 1895.

7. *New Diagnostic Techniques*
    a. *Indirect Laryngoscopy*—Manuel Garcia, a singer, noted that he could observe his own larynx with a long-handled mirror. He presented a paper to the Royal Society on the mechanics of phonation in 1855. The diagnostic potential of this procedure was noted immediately.
    b. *Cystoscopy*—The first cystoscope and the first cystoscopic diagnosis of a bladder tumor were made by Max Nitze in 1887.

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## Medical School Enrollment Shows Another Increase

Total enrollment in the 116 U. S. medical schools in 1976-1977 was 58,266, an increase of 2,022 over the previous year, states the American Medical Association's 77th annual report on medical education published in the Dec. 26, 1977 issue of the *Journal of the American Medical Association.*

First-year enrollment increased from 15,351 in 1975-1976 to 15,667 in 1976-1977, the AMA reports. The number of graduates increased from 13,561 to 13,607.

The total number of women enrolled in 1976-1977 was 13,059, an increase of 1,532 over the previous year.

There were 41,394 full-time faculty members in the schools in 1976-1977 for a ratio of one teacher for each 1.4 students. In addition, more than 80,000 physicians and others taught part time.

The total new enrollment of 15,667 students was selected from a total of 42,155 applicants. For the second time in as many years, the number of applicants declined slightly from the peak of 42,624 in 1974-1975. Each applicant applied to an average of almost nine different schools at the same time, hoping for acceptance by at least one.

By 1981-1982, the 116 medical schools projected a first-year class of more than 16,000 with more than 16,000 graduates each year. Some additional medical schools will be in operation by that time.

BRIEF SUMMARY OF
PRESCRIBING INFORMATION

**ANTIMINTH**® (pyrantel pamoate)
**ORAL SUSPENSION**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 μg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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**Antiminth®**
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equivalent to 50 mg pyrantel/ml
ORAL SUSPENSION

a drug of choice in pinworm infections

Please see brief summary of prescribing information on facing page.

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# *Clinical experience & continuing confidence*

KAON® ELIXIR was introduced in **1954**, followed by KAON® TABLETS in **1963.** Decades of clinical experience indicate acceptability, effectiveness, and safety in the majority of patients; should abdominal pain occur, therapy should be discontinued. Both have been taken by patient after patient, day after day, year after year, to correct potassium deficiencies. Both have consistently demonstrated their value when diet alone is inadequate for potassium replacement.

## Kaon® Elixir
(potassium gluconate)

## Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
**Kaon Tablets/Kaon Elixir**

**KAON® (potassium gluconate) TABLETS**

**Description:** Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
**Indications:** Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
**Contraindications:** Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
**Warning:** There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
**Precautions:** In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

1954
1977
Time is
the test of
all things

tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

**Adverse Reactions:** Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

**Overdosage:** Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

**KAON® (potassium gluconate) ELIXIR**

**Description:** Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

**Indications:** See Kaon Tablets.

**Precautions:** See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

**Adverse Reactions:** See Kaon Tablets.

**Overdosage:** See Kaon Tablets.

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8 **New Doctor's Kit** (OP-458) $10.00
Contains: **The Business Side of Medical Practice; Planning Guide for Physicians' Medical Facilities; AMA Publications Lists; Group Practice Guidelines; Current Procedural Terminology** order form; Uniform Health Insurance Claim Form; **Medicolegal Forms; Talking with Patients; Preparing a Patient Information Booklet;** AMA membership information; Placement Service; and bibliography on billing systems, recording keeping systems, etc.

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Stepping down estrogen levels to 50 mcg?

# Ortho-Novum 1/50 ☐ 21 and 28 day

TRADEMARK

Each tablet contains 1 mg norethindrone and 0.05 mg mestranol. Each green tablet in the 28-day regimen contains inert ingredients.

## a step in the right direction

See the complete prescribing information for this product, a summary of which is on the next page.

OJ 357-7

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# Ortho-Novum 1/50

TRADEMARK

Each yellow tablet contains 1 mg norethindrone and 0 05 mg mestranol Each green tablet in the 28-day regimen contains inert ingredients

**IMPORTANT NOTE—This information is a BRIEF SUMMARY of the complete prescribing information provided with the product and therefore should not be used as the sole basis for prescribing the product. This summary was prepared by deleting from the complete prescribing information certain text, tables, and references where indicated by the symbol [ ]. The physician should be thoroughly familiar with the complete prescribing information and patient information before prescribing the product. [ ].**

**INDICATION:** Contraception [ ]

**CONTRAINDICATIONS:** Oral contraceptives (OC's) should not be used in women with any of the following conditions:
1 Thrombophlebitis, thromboembolic disorders or conditions which predispose to these disorders 2 A past history of deep vein thrombophlebitis or thromboembolic disorders 3. Cerebral vascular or coronary artery disease 4 Known or suspected carcinoma of the breast 5 Known or suspected estrogen-dependent neoplasia 6. Undiagnosed, abnormal genital bleeding 7 Known or suspected pregnancy (see WARNINGS, No. 5).

**WARNINGS:**

The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, and hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic. These studies estimate that users of oral contraceptives are 4 to 11 times more likely to develop these diseases without evident cause than are nonusers. Overall excess mortality due to pulmonary embolism or stroke is on the order of 1 0 to 3 5 deaths annually per 100,000 users and increases with age In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than in nonusers and the risk of thrombotic stroke was 4 to 9.5 times greater in users than in nonusers [ ]

An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported, confirming a previously suspected association These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor. The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group [ ]

In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives. Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved This finding has been confirmed in the United States. Cases of thromboembolic disease have been reported in women using progestin-only oral contraceptives, and they should not be presumed to be free of excess risk

The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age Oral contraceptives are, however, an independent risk factor for these events [ ]

The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception The estimates of risk of death for each method include the combined risk of the contraceptive method (e.g., thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method [ ] The study concluded that the mortality associated with all methods of birth control is low compared to the risk of childbirth, with the exception of oral contraceptives in women over 40, and that the lowest mortality is associated with the condom or diaphragm backed up by early abortion.

The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors

The use of oral contraceptives in women in this age group is not recommended

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g., thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis). Should any of these occur or be suspected, the drug should be discontinued immediately

A four- to six-fold increased risk of post-surgery thromboembolic complications has been reported in oral contraceptive users If feasible, oral contraceptives should be discontinued at least four weeks before surgery [ ]

2 OCULAR LESIONS There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision, sudden onset of proptosis or diplopia, papilledema, or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures

3. CARCINOMA. Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver. [ ]

In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives. [ ]

One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in subgroups of oral contraceptive users with documented benign breast disease A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented

In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception

4 HEPATIC ADENOMA Benign hepatic adenomas appear to be associated with the use of oral contraceptives Although benign, and rare, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage. This has been reported in short-term as well as long-term users of oral contraceptives, although one study relates risk with duration of use of the contraceptive While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass, or shock

A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives [ ]

5 USE IN PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare This risk has been estimated as not greater than 4 per 1,000 exposures Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes

Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects One case control study has estimated a 4 7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion) Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births

In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestins are effective for these uses

There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives. Embryos with these anomalies are virtually always aborted spontaneously Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown.

Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks

It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive Many clinicians recommend 3 months

The administration of progestin-only or progestin-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy.

6. GALLBLADDER DISEASE Studies report a doubling of the risk of surgically confirmed gallbladder disease in users of oral contraceptives or estrogen for 2 or more years

7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives.

An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives.

8. ELEVATED BLOOD PRESSURE An increase in blood pressure has been reported in patients receiving oral contraceptives In some women hypertension may occur within a few months of beginning oral contraceptive use In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers. The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year Age is also strongly correlated with the development of hypertension in oral contraceptive users. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives

9. HEADACHE The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause.

10. BLEEDING IRREGULARITIES. Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy [ ] Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease

Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives. Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods.

11. ECTOPIC PREGNANCY Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. However, in oral contraceptive failures, the ratio of ectopic to intrauterine pregnancies is higher than in women who are not receiving oral contraceptives, since the drugs are more effective in preventing intrauterine than ectopic pregnancies [ ]

12 BREAST FEEDING. Oral contraceptives given in the postpartum period interfere with lactation There may be a decrease in the quantity and quality of the breast milk Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs [ ] If feasible, the use of oral contraceptives should be deferred until the infant has been weaned.

**PRECAUTIONS: General** 1 A complete medical and family history should be taken prior to the initiation of oral contraceptives The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests As a general rule, oral contraceptives should not be prescribed for longer than 1 year without another physical examination being performed 2 Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size 3. Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree Patients becoming significantly depressed while taking oral contraceptives should stop the medication 4 Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, or cardiac or renal insufficiency 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy If jaundice develops in any patient receiving such drugs, the medication should be discontinued 6. Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients 7. Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency 8 Serum folate levels may be depressed by oral contraceptive therapy. Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency 9 The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted. 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives

a Increased sulfobromophthalein retention.

b Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability

c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered

d Decreased pregnanediol excretion

e Reduced response to metyrapone test

**INFORMATION FOR THE PATIENT (See Patient Package Insert)**

**DRUG INTERACTIONS:** Reduced efficacy and increased incidence of breakthrough bleeding have been associated with rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. [ ]

**ADVERSE REACTIONS:** An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS)

Thrombophlebitis, pulmonary embolism; coronary thrombosis, cerebral thrombosis, cerebral hemorrhage, hypertension; gallbladder disease; congenital anomalies

There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed.

Mesenteric thrombosis, benign hepatomas, neuro-ocular lesions, e g retinal thrombosis and optic neuritis

The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug related

Nausea, usually the most common adverse experience, vomiting reaction, occurring in approximately 10% or less of patients during the first cycle Other reactions, as a general rule, are seen much less frequently or only occasionally: gastrointestinal symptoms (such as abdominal cramps and bloating); breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, amenorrhea during and after treatment, temporary infertility after discontinuance of treatment, edema, chloasma or melasma which may persist, breast changes, tenderness, enlargement and secretion, change in weight (increase or decrease); change in cervical erosion and cervical secretion; possible diminution in lactation when given immediately postpartum, cholestatic jaundice, migraine, increase in size of uterine leiomyomata, rash (allergic); mental depression, reduced tolerance to carbohydrates, vaginal candidiasis

The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted

Premenstrual-like syndrome, intolerance to contact lenses, change in corneal curvature (steepening), cataracts; changes in libido, chorea, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, hirsutism, loss of scalp hair erythema multiforme, erythema nodosum, hemorrhagic eruption, vaginitis, porphyria, impaired renal function

**ACUTE OVERDOSE:** Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children. Overdosage may cause nausea, and withdrawal bleeding may occur in females [ ]

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# The Physician and the Law

## *Communicable Diseases*

One of the most important exceptions to the physician's obligation to maintain the confidentiality of the physician-patient relationship is the obligation to report the diagnosis of communicable disease. The obligation is imposed on the physician by the state of Missouri. The state's authority is police power which is derived from the state's own obligation to preserve the public health.[1]

In Missouri, statutory law assigns to the Division of Health, Department of Social Services the duty and responsibility of safeguarding the health of the people in the state. The Division of Health is also charged with the task of designating communicable diseases and administering a program of disease identification and prevention.[2] The Division has promulgated rules regarding control of communicable diseases which now appear in the Code of State Regulations.

The current regulations list the following diseases which must be reported as individual cases: Animal bites; brucellosis; chancroid; diphtheria; dysentery, amebic; dysentery, bacillary; encephalitis, infectious (viral); gonorrhea; granuloma inguinale; hepatitis, infectious; histoplasmosis, active; leptospirosis; lymphogranuloma venereum; malaria; meningitis, aseptic; meningococcic meningitis and meningococcemia; poliomyelitis, paralytic and non-paralytic; psittacosis (ornithosis); Rocky Mountain spotted fever; salmonellosis (excluding typhoid and paratyphoid fevers, listed below); smallpox; syphilis; tetanus; trachoma; trichinosis; tuberculosis, active pulmonary and non-pulmonary; tularemia; typhoid and paratyphoid fevers; and typhus fever, endemic.

Other communicable diseases which do not commonly occur in Missouri, such as anthrax, botulism, cholera or plague, must be reported since the diseases could endanger the public health.

Diseases or conditions not listed, when occurring in epidemic or unusual incidence, are reportable as group reports. Examples given are gastroenteritis, food poisoning, impetigo, influenza and influenza-like diseases, measles, pertussis or ringworm of the scalp.

The physician also shall report occupational diseases and disabilities, such as dermatitis, illness resulting from excessive heat or cold, pneumoconiosis, poisoning and radiation exposure.[3]

It is the responsibility of the physician in attendance upon a communicable disease to report the condition to the city or county health department or district health unit within 24 hours of the time of diagnosis. A report may be by telephone or in writing. A complete report includes the name, age, sex, race and address of the patient; the disease and stage or type; date of onset; name and address of hospital if the patient is hospitalized; date of report; and the name and address of reporting physician.[4]

A physician attending a patient suspected of having or having anthrax, botulism, cholera, glanders, plague, smallpox, primary or secondary syphilis, epidemic or typhus fever or yellow fever must immediately report directly to the Director of the Division of Health, Jefferson City by collect telephone or telegraph in addition to making the required report to the city or county health department or district health department.[5]

Upon diagnosing a case of reportable communicable disease, the physician must order the institution of control measures, if necessary. Control measures include isolation, quarantine of contacts or disinfection. If a person dies while infected with a communicable disease, the physician must determine who is to prepare the body for burial or cremation and then notify that person regarding the disease the deceased had at the time of death.[6]

Although required by law, the reports are a violation of the physician-patient confidential relationship. However, the physician is protected from having to pay damages for this breach of confidence by common law immunity. In Missouri, the applicable case reads, "one who reports a suspected case of a contagious disease to the health officers in good faith and on reasonable grounds should not be liable in damages."[7]

According to the language of the case, the condition need only be "suspected" for the immunity to apply. Indeed, public policy is so strongly weighted in favor of reporting communicable diseases that a physician who fails to report such a

*(Continued on page 17)*

# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd.
Kansas City 64132
(816) 276-4167

| | |
|---|---|
| Feb. 1 | Gynecology and Female Urology |
| Apr. 5 | Hematology |
| June 2 | Drug Actions and Interactions |
| Aug. 2 | Anxiety, Depression and Psychosexual Problems |

University of Missouri-Columbia
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

| | |
|---|---|
| Feb. 7-8 | The Professional and Community Role of the Physician in Alcohol Abuse |
| Feb. 22-23 | Dynamic Dietetics for Dedicated Diligent Doctors |
| Mar. 8-9 | Preceptor's Day |
| Mar. 22-23 | Common Problems in Cardiology |
| Apr. 6-7 | 24th Annual Urology Seminar<br>(Kansas City) |
| Apr. 25 | Pediatrics Refresher Course—1978 |
| Apr. 29 | Annual Day of Clinical Radiology |
| May 2-3 | Sports Medicine Conference |
| May 10 | Stroke |

American College of Physicians
*Contact:* Thomas W. Burns, M.D.
University of Missouri School of Medicine
Columbia 65201

| | |
|---|---|
| Mar. 9-11 | Missouri Regional Meeting<br>(Breckenridge Pavilion Inn, St. Louis) |

Mercy-Baptist Eye Seminars
St. John's Mercy Medical Center
615 S. New Ballas Rd.
St. Louis 63141
*Contact:* Richard B. Oglesby, M.D.

| | |
|---|---|
| Apr. 2 | Annual Spring Seminar—Highlights of Ophthalmology |

University of Missouri-Kansas City School of Medicine —Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
*Contact:* Alta Bingham

| | |
|---|---|
| Jan. 22-27 | Mid-Winter Traveling Medical Education Course<br>(Steamboat Springs, Colo.) |
| Feb. 17-18 | The Long Weekend—Immunology/Oncology |
| Feb. 19-25 | Mid-Winter Traveling Medical Educational Course<br>(Scottsdale, Ariz.) |
| Feb. 25-Mar. 4 | Late-Winter Traveling Medical Educational Course<br>(Maui, Hawaii) |
| April 6-8 | Update for the Primary Care Physician |
| April 20-21 | Surgical Techniques |
| May 4-6 | Seminar: Update in Obstetrics and Gynecology |
| May 19-20 | The Long Weekend—Cardiovascular Disease I and II |
| June 1-2 | Symposium on Physical Fitness |

American College of Obstetricians and Gynecologists
*Contact:* ACOG
One E. Wacker Dr., Chicago, Ill. 60601

| | |
|---|---|
| Oct. 20-21 | Workshop on Practice Productivity |

The Edward Mallinckrodt Institute of Radiology—Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| Feb. 13 | Recent Advances in Cardiovascular Nuclear Medicine |
| Mar. 13 | CT Scanning for Treatment Planning and Follow-up of Primary Brain Tumors |
| Apr. 10 | Newer Aspects of Neuroradiology |
| May 8 | Hematologic Bone Disease |
| May 25-26 | Fifth International Symposium on Intestinal Microecology |
| Aug. 10-11 | Workshop in Soft Tissue Surgery<br>(Contact J. Regan Thomas, M.D., Section o Otolaryngology) |

**Washington University School of Medicine**
**Continuing Medical Education**
**Box 8063, 660 S. Euclid Ave., St. Louis 63110**
**(314) 367-9673**
***Contact:* Loretta Giacoletto**

| | |
|---|---|
| **Feb. 16-17** | Current Topics in Pulmonary Disease |
| **Mar. 2-3** | Rheumatology for the Practicing Physician |
| **Mar. 6-May 22** | Internal Medicine Board Examination Review<br>(Steinberg Auditorium, Jewish Hospital) |
| **May 3-5** | Current Topics in Infectious Diseases |
| **Apr. 6-7** | Venous and Arterial Thrombosis: Current Status of Diagnosis, Prevention and Therapy |
| **Apr. 13-14** | Fifth Annual Symposium on Ob-Gyn |
| **Apr. 17-18** | Hysteria in Children |
| **April 20** | Hypertension Update |
| **May 18** | Third Annual Symposium on Surgical Problems in Children |
| **May 19-20** | Neuromuscular Diseases |

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**Ellis Fischel State Cancer Hospital—Cancer Research Center**
**115 Business Loop 70 West**
**Columbia 65201**
**(314) 449-2711**
***Contact:* Carlos Perez-Mesa, M.D., Program Coordinator**

| | |
|---|---|
| **Apr. 15** | New Vistas in Cancer of the Breast |

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**Greene County Medical Society**
**223 Professional Bldg., Springfield 65806**
**(417) 869-2531**
***Contact:* James E. Thompson, Jr., Executive Director**

| | |
|---|---|
| **Sept. 29** | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

## The Physician and the Law

*(Continued from page 15)*

case could possibly be held civilly liable in damages, as well as criminally liable for a misdemeanor, based on the duty to report imposed by regulation.

The Missouri Division of Health publishes a *Missouri Public Health Manual* which includes complete regulations which involve the control of communicable disease. The manual is available by writing the Division of Health, P.O. Box 570, Jefferson City, Mo. 65101.

References

1. 39 Am. Jur. *Health* §1 ( ).
2. Ch. 192.020, R.S.Mo. (1969).
3. 13 CSR 50—101.020.
4. 13 CSR 50—101.030.
5. 13 CSR 50—101.060(1).
6. 13 CSR 50—101.060(2), (3).
7. *McGuire v. Amyx*, 317 Mo. 1061, 297 SW 968 (1927).

# KANSAS CITY SOUTHWEST CLINICAL SOCIETY

**In cooperation with University of Missouri-Kansas City School of Medicine**

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JAMES C. WARREN, M.D., Ph.D., Washington University School of Medicine, St. Louis, Missouri.

**Program Topics Include:**

Pharmacology for the Practicing Physician; Office Gynecology; Surgery and the Pulmonary Patient; Hyperalimentation.

---

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RALPH E. CUTLER, M.D., University of Washington School of Medicine, Seattle, Washington.

THOMAS F. FRAWLEY, M.D., St. Louis School of Medicine, St. Louis, Missouri.

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**ACCREDITATION**
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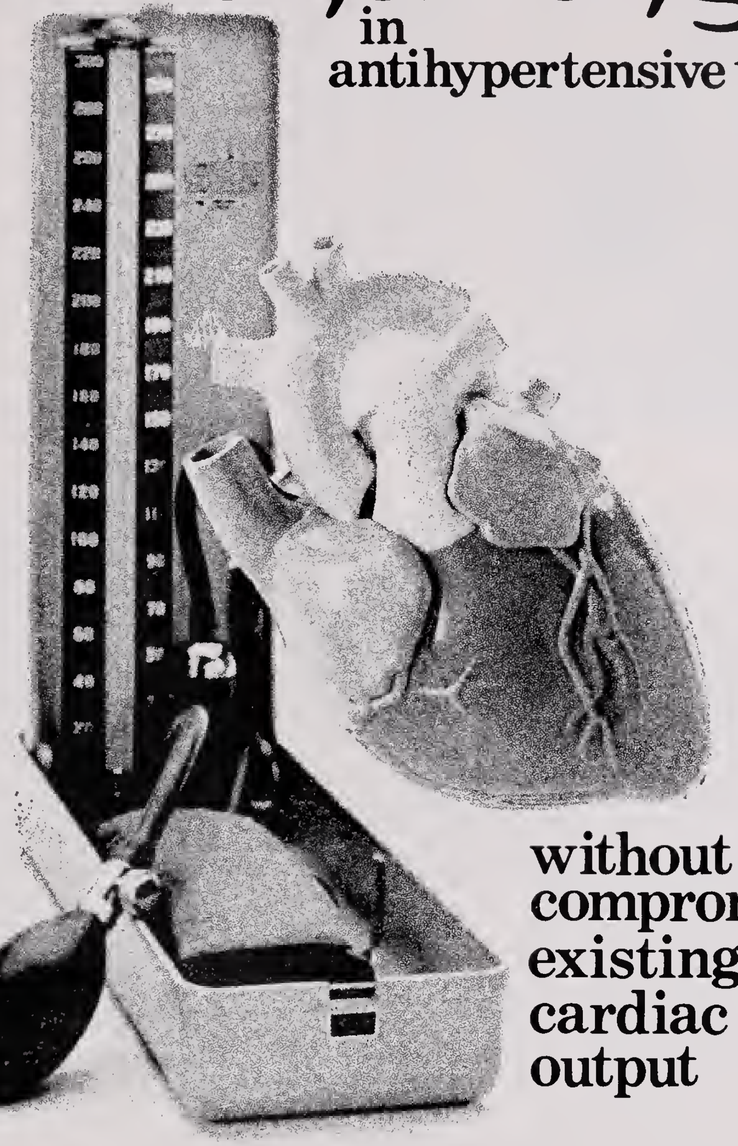
in
antihypertensive therapy



to lower
blood pressure
effectively...

without
compromising
existing
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n hypertension

BLETS: 250 mg, 500 mg, and 125 mg

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elps lower blood pressure effectively...
usually with no direct effect on
ardiac function–cardiac output
s usually maintained

LDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if
evious methyldopa therapy has been associated with liver disorders.
is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders
ay occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders
uld lead to potentially fatal complications unless properly recognized and managed. For more
etails see the brief summary of prescribing information.

**r a brief summary of prescribing information, please see following page.**

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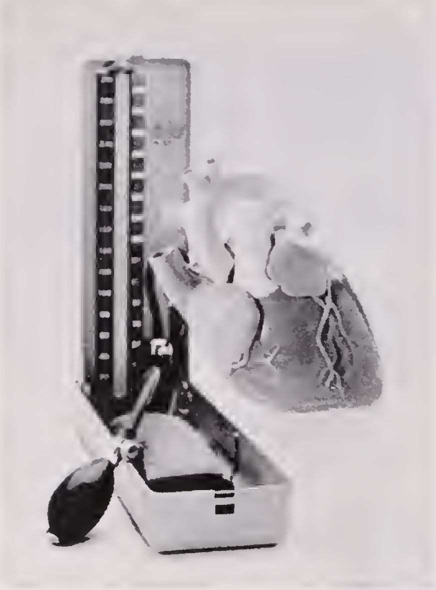

in hypertension

# ALDOMET®

(METHYLDOPA|MSD)

helps lower
blood pressure
effectively...
usually with no
direct effect on
cardiac function–
cardiac output is
usually maintained

**Contraindications:** Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

**Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.**

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, occasionally with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

*Pregnancy and Nursing:* Use of any drug in women who are or may become pregnant or intend to nurse requires that anticipated benefits be weighed against possible risks; possibility of fetal injury or injury to a nursing infant cannot be excluded. Methyldopa crosses the placental barrier, appears in cord blood, and appears in breast milk.

**Precautions:** Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of urinary uric acid by the phosphotungstate method, serum creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses of anesthetics; hypotension occurring during anesthesia usually can be controlled with vasopressors. Hypertension has recurred after dialysis in patients on methyldopa because the drug is removed by this procedure.

**Adverse Reactions:** *Central nervous system:* Sedation, headache, asthenia or weakness, usually early and transient; dizziness, lightheadedness, symptoms of cerebrovascular insufficiency, paresthesias, parkinsonism, Bell's palsy, decreased mental acuity, involuntary choreoathetotic movements; psychic disturbances, including nightmares and reversible mild psychoses or depression.

*Cardiovascular:* Bradycardia, aggravation of angina pectoris. Orthostatic hypotension (decrease daily dosage). Edema (and weight gain) usually relieved by use of a diuretic. (Discontinue methyldopa if edema progresses or signs of heart failure appear.)

*Gastrointestinal:* Nausea, vomiting, distention, constipation, flatus, diarrhea, mild dryness of mouth, sore or "black" tongue, pancreatitis, sialadenitis.

*Hepatic:* Abnormal liver function tests, jaundice, liver disorders.

*Hematologic:* Positive Coombs test, hemolytic anemia. Leukopenia, granulocytopenia, thrombocytopenia. Positive tests for antinuclear antibody, LE cells, and rheumatoid factor.

*Allergic:* Drug-related fever, lupus-like syndrome, myocarditis.

*Other:* Nasal stuffiness, rise in BUN, breast enlargement, gynecomastia, lactation, impotence, decreased libido, dermatologic reactions including eczema and lichenoid eruptions, mild arthralgia, myalgia.

**Note:** Initial adult dosage should be limited to 500 mg daily when given with antihypertensives other than thiazides. Tolerance may occur, usually between second and third months of therapy; increased dosage or adding a diuretic frequently restores effective control. Patients with impaired renal function may respond to smaller doses. Syncope in older patients may be related to increased sensitivity and advanced arteriosclerotic vascular disease; this may be avoided by lower doses.

**How Supplied:** Tablets, containing 125 mg methyldopa each, in bottles of 100; Tablets, containing 250 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 1000; Tablets, containing 500 mg methyldopa each, in single-unit packages of 100 and bottles of 100 and 500.

*For more detailed information, consult your MSD representative or see full prescribing information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486* J6AM07R1(709)

**MSD** MERCK SHARP & DOHME

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DAVID G. HOF, M.D., GERARDO G. VERGARA, M.D.,
FREDERICK H. HARTWIG, M.D. *and* JACK H. HILL, M.D., *Kansas City*

# Severe Acute Toxic Amoebic Colitis Requiring Total Colectomy

## *Case Report*

Reports of toxic colitis and bowel perforations secondary to Entameba histolytica needing aggressive treatment are few and essentially only from areas of high incidence. This report describes a case of severe amebic toxic colitis with bowel perforation secondary to Entameba histolytica. A successful outcome occurred after colectomy, distal ileectomy and ileostomy and early aggressive antibiotic and antiamebic therapy.

### Amebic Dysentery

### Case Report

A 69-year-old Mexican-American woman was admitted to the hospital on Aug. 1, 1976 with a three- to four-day history of increasing bloody diarrhea.

The patient had just returned from a three week visit to a community of approximately 10,000 just outside Guadalajara in Mexico where she enjoyed all normal plumbing facilities. The patient had been well during her entire visit until approximately two to three days after her return home. At that time, she noticed abdominal distension and the feeling of a mass in her right lower quadrant. This was followed shortly by the onset of diarrhea stools, which became blood streaked and progressed to gross hematochezia and watery fecal incontinence. The patient had been accompanied by a daughter and a granddaughter who remained healthy throughout the trip and after the return. Prior to hospitalization, the patient had denied any fever or shaking chills, had no complaints of nausea or vomiting and had been taking fluids by mouth. The patient had been on no previous medications.

Since 1920, she had made annual visits to this community in Mexico and, except for transient loose stools, had never been ill. She had had cholelithiasis, however. The diagnosis for acute cholecystitis was made on a previous admission in 1974. She was treated medically and had a complete recovery without any further therapy for the stones. The patient also had bilateral total hip replacements for osteoarthritis, was markedly obese and had a mild glucose intolerance.

Her physical findings on admission included marked obesity, moderate abdominal distension and tenderness with increased bowel sounds. Her blood pressure was normal, but her pulse rate was 110/min. Despite therapy with fluids and antidiarrheal agents, the patient's condition deteriorated rapidly on the third hospital day with the development of mental obtundation, decreased urine output and fall in blood pressure. A medicine consultation was obtained.

Examination at this point revealed an obese woman who was markedly lethargic, but arousable and primarily speaking Spanish. Her blood pressure was 100/70 with a 15 mm orthostatic drop. Heart rate was 130/minute and regular. She was significantly dehydrated with soft eyes and had extremely dry buccal mucosa. Her pupils were equally reactive to light and the funduscopic examination revealed mild arteriolar narrowing. The chest examination revealed occasional atelectatic rales in both lung bases, and the cardiac examination revealed a tachycardia without gallops, rubs or murmurs. The abdomen was markedly distended and tympanitic without severe rigidity or rebound tenderness. There was increased tenderness, however, in the right lower quadrant and the bowel sounds were hyperactive. A pelvic examination was unremarkable. The rectal examination revealed fecal incontinence with watery, bloody stool.

Her chest x-ray revealed lower lobe discoid atelectasis bilaterally. An abdominal film revealed a markedly distended stomach and small bowel with air fluid levels. The cecum and colon could not be demonstrated on this flat plate.

Four stools submitted in phenolsulfonphthalein (PSP) for ova and parasites were negative. The hemoglobin value was 14.4 gm/100 ml. White blood cell count was 18,600 with 5% metamyelocytes, 25% segs, 28% bands, 32% lymphs, 2% monos and 8% eos with marked toxic granulation. Her platelet count was within normal limits. The serum sodium value was 134 mEq/liter; chloride, 97 mEq/liter; and bicarbonate, 20. The patient was afebrile. Her electrocardiogram (EKG) revealed a sinus tachycardia and nonspecific ST changes.

Sigmoidoscopy immediately performed at the bedside revealed an extremely friable mucosa with a pseudomembranous appearing exudate. Swabbing the colonic wall lifted this pseudomembranous material and produced gross hemorrhage. Rectal swabs, obtained at this time, revealed large numbers of Entamoeba histolytica trophozoites actively phagocytizing red blood cells and necrotic debris. The diagnosis made at this time was toxic colitis secondary to amebic dysentery. Aggressive fluid replacement through central venous catheters was begun. An NG tube was placed to Gomco suction, and the patient was placed on a regimen of emetine hydrochloride 30 mg (IM bid) and high-dose intravenous gentamicin and clindamycin, administered intravenously. She remained afebrile and her urine output improved. Her blood urea nitrogen (BUN) and creatinine were 15 and 1.1, respectively.

Despite volume replacement, normal electrolytes, BUN, creatinine and blood pressure, her condition worsened on the next day. Her white blood cell count increased to 22,500 with 1% promyelocytes, 10% metamyelocytes, 5% myelocytes, 15% segs, 61% bands, 4% lymphs and 2% monos. A repeat abdominal x-ray revealed free air in the peritoneum. On the fifth hospital day, a total colectomy was performed as well as a distal ileectomy and an ileostomy. At the time of operation, the colon was noted to be extremely friable and gangrenous in appearance with multiple areas of perforation and with spillage into the mesentery. The peritoneum, however, was relatively free of bowel spillage except in the areas of the cecum and ascending colon. Irrigation drains were placed in both peritoneal gutters and positioned in the areas of spillage.

Postoperatively, the patient continued to receive the emetine and therapeutic doses of gentamicin and clindamycin. Peritoneal lavage through the catheters placed at time of operation with equal parts of 4.25% and 1.5% dialysate fluid, potassium replacement and 10 mg of gentamicin/L of fluid was performed hourly for the succeeding 36 hours. Her BUN and creatinine remained within normal limits and her urine output remained stable throughout the entire irrigation. The NG was removed on the fifth postoperative day and the patient began to tolerate fluids, at which time she was begun on metronidazole 750 mg% (Flagyl) (PO tid) in addition to her parenteral emetine. Although the patient had spiked a fever postoperatively on the regimen described, she soon became afebrile and her white blood cell count began to decrease and the severe toxic shift improved. The emetine was discontinued after ten days. The patient had tolerated this drug well without alterations in her EKG.

A baseline serum hemagglutination inhibition titer for Entamoebic histolyticum was obtained from the CDC and noted to be positive (1 : 512). The metronidazole was continued for an additional 25 days. The patient's postoperative course continued to be stormy. However, it was secondary to her obesity and poor pulmonary toilet. One month postoperatively, she was doing well, tolerating a regular diet and performing at her pre-illness activity level.

**A 69-year-old woman had a rapidly progressive course of toxic colitis secondary to infestation by Entameba histolytica. When her condition continued to deterioriate despite appropriate antibiotic and antiamebic therapy, her course was reversed by total colectomy, distal ileectomy and ileostomy and continued medical therapy. Drs. Vergara, Hartwig and Hill are from Trinity Lutheran Hospital. Dr. Hof, who was at Trinity Lutheran Hospital at the time this paper was written, is now on a pulmonary fellowship at the University of Minnesota Hospitals, Minneapolis, Minn.**

## SURGICAL PATHOLOGY

The total coleotomy specimen included a short segment of distal ileum and omentum. Several perforations are evident in the cecum, transverse colon and rectosigmoid colon. The entire bowel wall is thin, greenish and necrotic (Fig. 1) with only an edematous peritoneal membrane and omental patch preventing leakage of bowel contents. The mucosal ulceration (Fig. 2) is extensive and confluent with smaller areas of intervening edematous mucosa. The base of the ulcer is covered by a yellow green membrane consisting of fibrin, necrotic debris and polymorphonuclear leukocytes. Numerous Entamebic histolytica trophozoites are invading the entire layer of bowel wall, including the mesentery (Fig. 3).

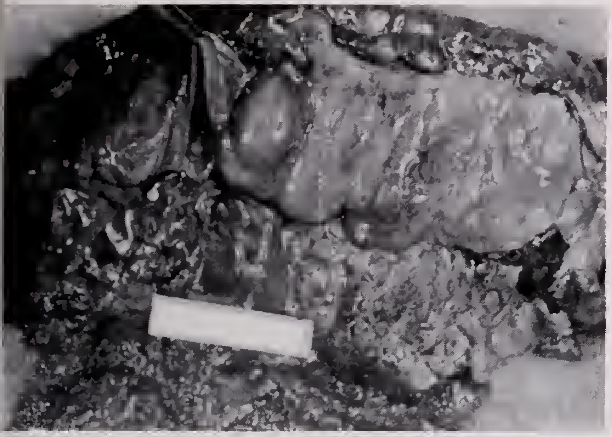
**Fig. 1** Necrotic, edematous large bowel with perforation.

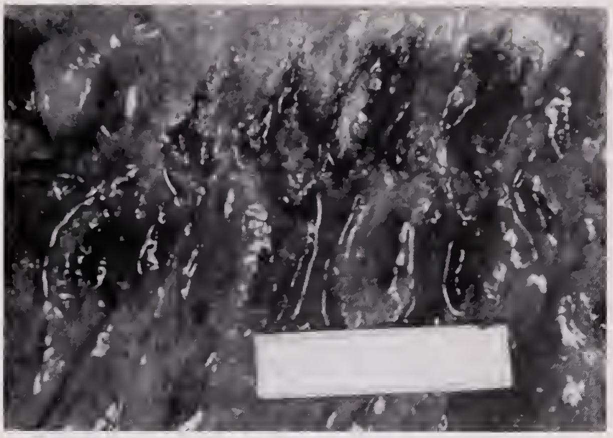
**Fig. 2** Extensive, necrotic mucosal ulcers with intervening edematous mucosa.

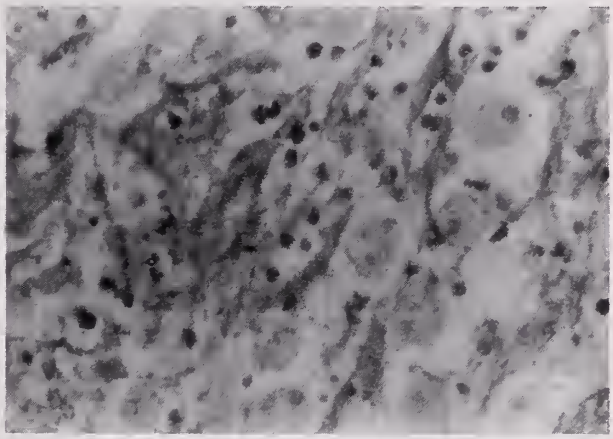
**Fig. 3** Entameba histolytica trophozoites invading the entire layer of bowel wall (H&E stain). (40×)

## DISCUSSION

Because of the previous history of cholelithiasis and cholecystitis which had been treated conservatively, a small bowel obstruction, most likely secondary to relapse was suspected. False emphasis had been placed on the negative stool specimens for ova and parasites and, unfortunately, amebic dysentery had been excluded from the differential diagnosis. When the patient began to deteriorate, an emergency operation without appropriate rehydration and without the correct preoperative diagnosis would not only have been at very high risk, but most likely would not have been therapeutic.[1] A 1973 review of acute amebic dysentery[2] pointed out that rapid identification of the cause of the symptoms and initiation of appropriate medical antiamebic therapy most often produces a rapid turnabout in the clinical picture in spite of the apparent need for surgical intervention. In fact, because of the extreme friability of the inflamed tissues, unwarranted surgery can lead to multiple complications such as dehiscence of anastomoses, peritonitis, abscess formation and a repeat operation.

A second severe situation can be produced by mistaking amebic colitis for ulcerative or granulomatous colitis. The clinical similarities of these problems is remarkable. Even at the time of surgery, the gross appearance of the problem is not necessarily helpful since granulomatous colitis more frequently causes transmural inflammation than does amebic colitis. Initiation of steroid therapy instead of improving the situation, however, leads to fulminant spread of the infection, colonic perforation and death.[3, 4]

Not all cases, however, respond to medical therapy only. Although most of the 55 cases reviewed by Juniper responded to an antiamebic therapy with a rapid reversal in symptoms, there were those patients who died without evidence of perforation. At autopsy as here, these cases demonstrated large areas throughout the colon of confluent ulcerations greater than 6 cm in diameter extending into the serosa. The occurrence of perforation secondary to the amebic ulcerations and bacterial overgrowth has since been noted to occur in an incidence of 0-5% of severe cases.[5, 6] Perforation is more often retroperitoneal than intraperitoneal and occurs most frequently in the cecum, ascending colon and rectosigmoid colon.[7–9] In a more recent review of 48 cases of necrotic amebic colitis which covered 12 years of cases in a referral center in an endemic area by Cutler *et al*,[10] 34 cases perforated and six patients died before their operation. Of the 28 patients who went to operation, only seven survived. Those who survived had the more radical surgical procedures so that the in-

*(Continued on page 28)*

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# Carcinoma of the Ovary

## *Case Report*

Ovarian cancer accounts for more than 10,000 deaths each year.[1, 2] Mortality rates for this disease have risen steadily to the point where more than one out of every 100 women in the United States will eventually die of ovarian cancer.[2] Current therapy, which has included extensive surgery, radiation and chemotherapy, has failed to significantly alter the death rate since 1930. In contrast, most other gynecologic cancers have demonstrated consistent improvement in survival rates. The failure of current therapy to improve survival in cancer of the ovary may be attributed to the lack of early diagnosis and to the "resistence" of the malignancy to existing therapy.

Nevertheless, some long-term, disease-free survivals have been accomplished using any or all of the three existing therapies (surgery, radiation and chemotherapy). Improved survival in ovarian carcinoma depends upon proper definition of prognostic factors, adequate staging of the disease and clinical trials to determine optimal existing therapy. Also, it is important to realize that ovarian cancer is not a uniform entity, but it is a group of malignant ovarian tumors which may vary widely in clinical course, response to the various modes of therapy and survival rates.

The optimal existing therapy for each type and stage of ovarian cancer can be better determined by studying past clinical trials and overall survival.[1, 3-7]

**A review of 143 cases of ovarian malignancy at St. Luke's Hospital from 1967 to 1975 revealed a five-year survival rate in 21% of the patients. The prognosis in ovarian malignancies apparently is improved with aggressive surgery and postoperative radiation therapy. The authors are from the Department of Obstetrics and Gynecology. This work was supported by the St. Luke's Hospital Foundation for Medical Education and Research.**

In the spring of 1975, an audit was performed on all cases of ovarian carcinoma at St. Luke's Hospital from January, 1967 through February, 1975. One hundred and forty-three (143) cases of ovarian cancer in a 98-month period were included. Before presenting the data of the audit, a recent case report of ovarian carcinoma not included in the audit will be presented.

### Case Report

This patient was a 58-year-old nulligravida who was first admitted to St. Luke's Hospital in early July, 1975 for first- and second-degree burns to her right shoulder. The patient had been working in her back yard when she fainted and sustained severe sunburn to her right shoulder. The patient stated that she had noticed increasing abdominal girth for the preceding two months. Her last menstrual period was at age 40 and she had been amenorrhic since that time. On physical examination, an irregular midline abdominal mass from the lower pelvis to the epigastric region was noted. The mass was non-tender and solid in consistency with possible cystic areas. On pelvic examination, the mass appeared to be the right ovary. The left ovary was also enlarged to approximately 6 cm in diameter and cystic in nature.

An exploratory laparotomy was performed. The large ovarian mass on the right was readily identified with a small left ovarian cyst. Thorough exploration of the entire abdomen revealed no other areas of tumor involvement. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. A frozen section of the right ovarian mass at the time of surgery was diagnosed as a benign mucinous cystoma of the ovary. The final pathology report was as follows:

Right ovary—25 cm in diameter multiloculated ovarian cyst

Left ovary—5 cm cyst

Both ovaries demonstrated serous cystadenocarcinoma with "borderline malignancy." Sections of tissue adjacent to the Fallopian tubes and uterus demonstrated adenocarcinoma (Figs. 1-6).

Careful reevaluation of the microscopic specimen was performed and it was decided that the tumor was definitely malignant. Postoperative staging was Stage IIB serous cystadenocarcinoma of the ovary. The patient was started on Cobalt-60 therapy to the pelvis on the eighth postoperative day.

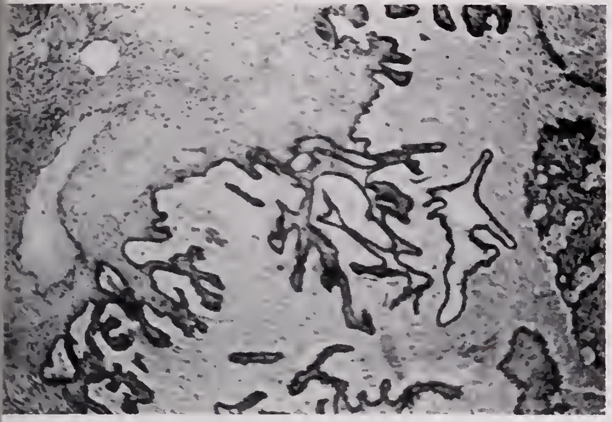

Fig. 1 Right ovary (low power).

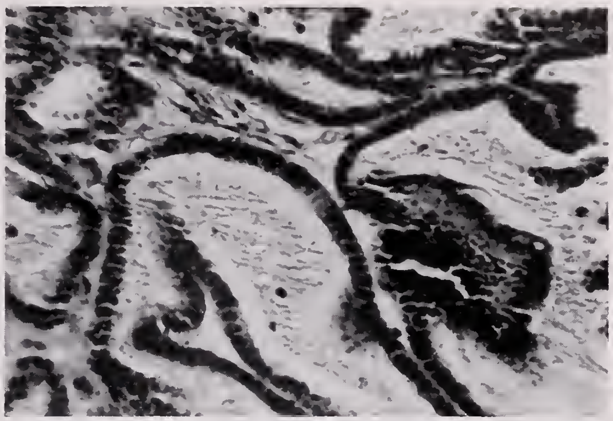

Fig. 2 Right ovary (high power).

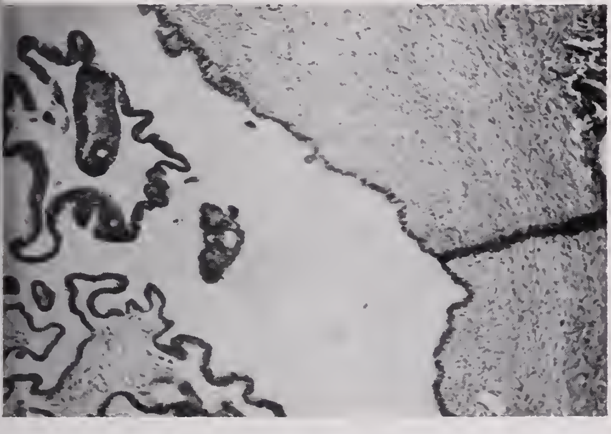

Fig. 3 Left ovary (low power).

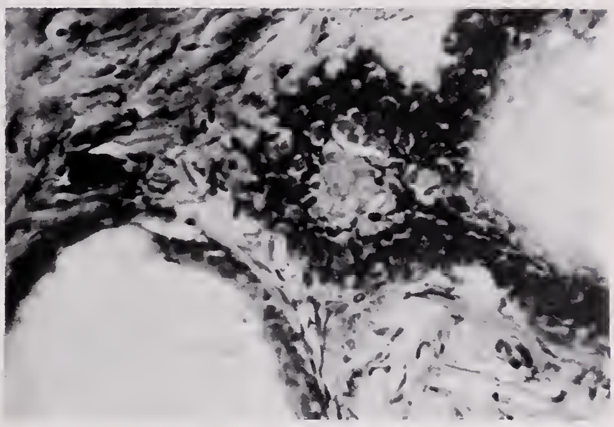

Fig. 4 Left ovary (high power).

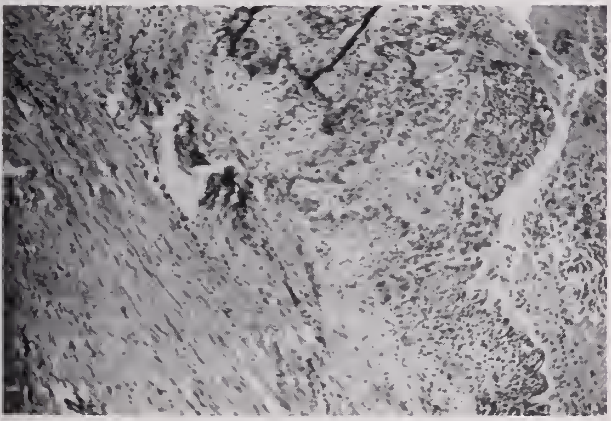

Fig. 5 Section of tumor adherent to uterus.

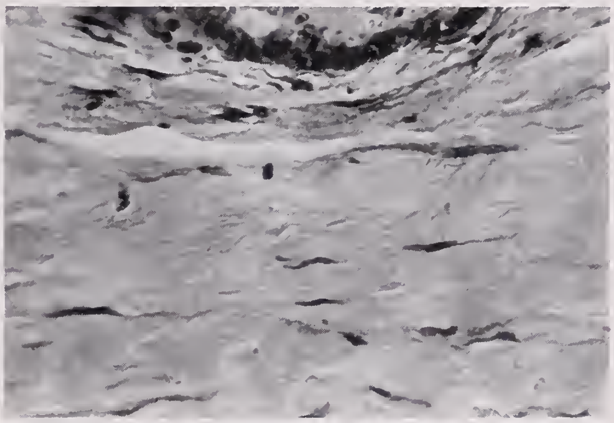

Fig. 6 Tissue adherent to uterus (high power).

## Results

In April of 1975, the record and audit committee of the Obstetrics and Gynecology Department at St. Luke's Hospital reviewed all cases of carcinoma of the ovary from January, 1967 through February, 1975. There were a total of 143 cases of ovarian carcinoma in this 98-month period, an average of approximately 1.5 cases per month.

The most common indication for admission was an abdominal or pelvic mass. Sixty-six (66) of 143 patients (46%) were admitted with that diagnosis. Other indications for admission are as listed in Table 1.

Treatment varied widely with various combinations. Ninety-two (92) of the patients (64%) had some type of surgical procedure as shown in Table 2. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed in 61 patients (42%). Seventy-one (71) patients (50%) received radiation therapy while 49 (34%) had che-

TABLE 1

| *Indications for Admission* | *Number of Patients* |
|---|---|
| Abdominal mass | 66 |
| Abdominal pain | 23 |
| Obstruction—intestinal | 15 |
| Abdominal enlargement | 14 |
| Ascites | 7 |
| Postmenopausal bleeding | 5 |
| Miscellaneous | 13 |
| Total | 143 |

TABLE 2

| *Treatment* | *Number of Patients* |
|---|---|
| Surgery | |
| TAH and BSO | 61 |
| BSO | 16 |
| Omental Biopsy | 16 |
| Unilateral oophorectomy | 16 |
| Biopsy only | 13 |
| Omentectomy | 10 |
| Fluid assay (paracentesis) | 8 |
| Colon resection | 5 |
| Peritoneal biopsy | 4 |
| None | 11 |
| Radiation and chemotherapy | |
| Radiation | 71 |
| Chemotherapy | 49 |

TABLE 3

OVARIAN MALIGNANCY SURVIVAL

| *Expired* | *<1 Yr* | *1 Yr* | *2 Yrs* | *3 Yrs* | *4 Yrs* | *5 Yrs or>* | *Total* |
|---|---|---|---|---|---|---|---|
| With disease | 47 | 17 | 7 | 11 | 3 | 6 | 91 |
| Disease free | 1 | 0 | 0 | 1 | 1 | 0 | 3 |
| Unknown disease | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Total | 48 | 17 | 7 | 12 | 4 | 8 | 96 |

TABLE 4

OVARIAN MALIGNANCY SURVIVAL

| *Alive* | *<1 Yr* | *1 Yr* | *2 Yrs* | *3 Yrs* | *4 Yrs* | *5 Yrs or>* | *Total* |
|---|---|---|---|---|---|---|---|
| With disease | 3 | 1 | 1 | 1 | 1 | 3 | 10 |
| Disease free | 6 | 6 | 4 | 5 | 6 | 5 | 32 |
| Unknown disease | 3 | 2 | 0 | 0 | 0 | 0 | 5 |
| Total | 12 | 9 | 5 | 6 | 7 | 8 | 47 |

motherapy. Forty-three (43) of these 71 patients received a combination of surgery and radiation.

Survival rate in these 143 cases is demonstrated in Tables 3 and 4. Ninety-six (96) patients have died, 91 of whom died with disease present. Forty-seven (47) patients are still living, eight of whom have lived more than five years. Of the 47 patients still living, 32 are disease-free at present (Table 4).

In the histological classification of ovarian malignancies, serous cystadenocarcinoma was the most common histologic type, occurring in 71 of 143 cases or approximately 50% (Table 5). The next most common histologic type was the undifferentiated adenocarcinomas with a frequency of 19%. Mucinous cystadenocarcinoma occurred in 9% of the cases. The ratio of serous cystadenocarcinoma to mucinous cystadenocarcinoma was 5.5/1.

Ninety-three (93) of the patients were over 40 years of age (Fig. 7). This percentage is similar to that in other studies, including Sall, who reported that 88% of the patients in his series were over 40 years of age.[1] Most investigators report a peak occurrence in the sixth decade of life.[1, 2, 8–10]

The patients in the present series demonstrated a peak in the seventh decade. Sixty-one percent (61%) of the patients were in the sixth and seventh decades, while 76% were 50 years of age and older.

Staging of ovarian cancers from the cases included in the audit was performed using the procedure outlined in the following table:

Stage I:
  Primary Tumor
  No direct extension
  No distant involvement
  Confined strictly to ovarian tissue or localized to ovarian tissue.

Stage II:
  Tumor has extended to or infiltrated the following:
    Local invasion of the peritoneum and/or Fallopian tube by extension
    Implants on ovary of primary site

TABLE 5

HISTOLOGIC CLASSIFICATION OF MALIGNANT OVARIAN TUMORS

| | % |
|---|---|
| Serous cystadenocarcinoma | 50 |
| Undifferentiated adenocarcinoma | 19 |
| Mucinous cystadenocarcinoma | 9 |
| Endometroid carcinoma | 7 |
| Malignant germinal cell tumor | 6 |
| Others | 9 |

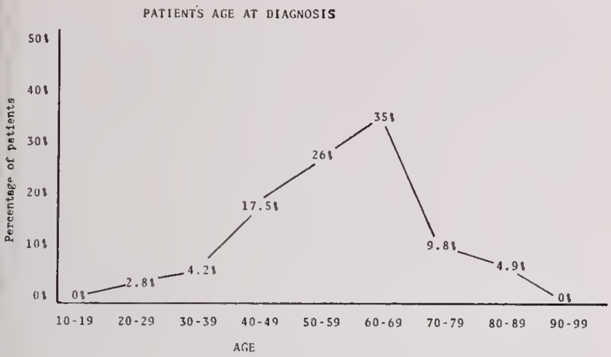

Fig. 7

Implants on peritoneum in area immediately adjacent to ovary

Stage III:
Further direct extension
Any adjacent extension other than above

Stage IV:
Distant involvement

Considerable confusion in the literature exists because of the multiple staging classifications used in the past. The FIGO classification was not used for staging in this series. Accurate comparison of survival rates for each stage is not possible for that reason. Crude comparisons can be made between this study and others reported in the literature since differences in staging criteria are relatively minor in most cases.

There were 73 cases of ovarian carcinoma in this study from 1967 through 1970, and this number is suitable for a five-year survival study (Table 6). Five-year survival for each Stage was determined for these 73 cases. Twenty-one (29%) of the 73 cases were classified as Stage I by the previously described classification. The five-year survival for Stage I was 76%. Nine of the 21 in this group were treated with surgery alone and have a five-year survival of 100%. Five others in Stage I were treated with a combination of surgery and radiation and three survived five years.

Only three cases (4%) were classified as Stage II and one patient survived for five years (33% five-year survival). There were ten cases of Stage III (14%); none of the patients were alive after five years. Stage IV contained the greatest percentage of the patients, namely, 38 of the 73 patients (52%). Five-year survival in Stage IV was 16%. One patient was listed as in an unknown stage. In Stages III and IV, radiation or chemotherapy or both were used more frequently as therapy. None of the ten patients in Stage III had surgery, although in 12 of the 38 Stage IV patients, surgery was the sole means of therapy. Overall five-year survival for these 73 patients from 1967 through 1970 was 32%.

TABLE 6

5-YEAR SURVIVAL (73 CASES) 32%

| | *Numbers* % | *5-Year Survival* % |
|---|---|---|
| Stage I | 21 (29) | 76 |
| Stage II | 3 (4) | 33 |
| Stage III | 10 (14) | 0 |
| Stage IV | 38 (52) | 16 |
| Unknown | 1 (1) | 0 |

These figures compare favorably with other reported survival rates although it must be remembered that the FIGO classification was not used in the study. Sall reported 223 cases of ovarian carcinoma with the following five-year survival rates: Stage I—67%; Stage II—39%; Stage III—9%; Stage IV—6%; Overall—21%.[8]

## DISCUSSION

There are approximately 15,000 new cases of ovarian carcinoma diagnosed each year and more than 10,000 deaths each year from this cancer.[2] Current therapeutic measures have failed to significantly improve overall survival from this disease. In 1930, the death rate from ovarian cancer was four per 100,000. In 1965, it was 15 per 100,000.[1] While other gynecologic cancers have improved survival rates in recent years, ovarian cancer still carries a poor prognosis. The overall survival rates for all patients with any gynecologic cancer is about 50%, more than twice the national figures for survival rate for ovarian cancer. At present, ovarian cancer claims more lives than all other gynecologic cancers combined. The poor prognosis is primarily due to inability to detect the disease before it disseminates and to inadequate treatment for various stages and types of ovarian cancer.[1, 2, 11] In this study, 52% of the patients were Stage IV at the time of diagnosis indicating the silence of ovarian cancer.

By studying the 73 cases of ovarian carcinoma from 1967 through 1970, of which all cases are eligible for five-year survival study, it is encouraging to find that our survival rate is 32%. This is somewhat higher than the national figure of 20%-25%.

The combination of surgery and radiation was an often-used mode of treatment in more advanced disease with some degree of success.

New approaches to the management of ovarian carcinoma with emphasis on the use of aggressive surgery, radiation and new chemotherapeutic drugs may provide some improvement. Early diagnosis appears to be the best weapon against the disease at the present time.

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# *Acute Toxic Amoebic Colitis*

*(Continued from page 23)*

volved area was totally removed and healthy tissue was reanastomosed or drained. In cases of perforation, medical management had a 100% mortality.

The patient in this case report is an example of a successful result of an aggressive approach to a complicated problem. Sigmoidoscopy and wet prep for ameba at the first evaluation of the patient are essential for diagnosis. Stools sent to the laboratory for ova and parasite evaluation may be negative, while on wet fresh swab or biopsy of the mucosa, motile trophozoites are readily seen. The early correct diagnosis then enabled the postponement of a high-risk surgical procedure until the patient was stabilized and started on appropriate antibiotics and anti-amebic therapy.[11, 12] An appropriately planned procedure could then be and was performed when it was in the patient's best interest.

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1977 was another year of health progress in Missouri, Dr. Herbert R. Domke, state health director, said in a year-end report issued this month by the Missouri Division of Health. The total death rate is down, the infant mortality rate has decreased and deaths from heart disease, stroke, pneumonia and motor vehicle accidents have dropped.

Dr. Domke cautioned that such improvements in health are not automatic. He said that each year "efforts to promote public health cannot be relaxed if we expect progress to continue." He cited the need for continued vigilance in the area of immunizable diseases as a prime example. Cancer is another example of a disease that could be decreased significantly if Missourians would respond to scientific knowledge.

Other good "good news" cited in the report is that for the first time, virtually every resident of the state now has access to licensed emergency ambulance services.

**PHILIP E. MORGAN, M.D., Columbia**

# Corticosteroid Eye Drops and Red Eyes

THERE ARE MANY GOOD REASONS why a corticosteroid-antibiotic combination drug must not be prescribed as an automatic response to a complaint of a red eye. Corticosteroid-containing "eye drops" or ointments must not be used without a definite indication and without the realization that they, more than many drugs, have harmful as well as beneficial effects. They must be recognized as potential sight destroyers if improperly used in eyes suffering superficial herpes simplex keratitis or fungal infections. In either of these conditions, the eye may feel better as it deteriorates. In steroid-responsive patients, corticosteroid-containing drops can cause glaucoma. Eyes which have their intraocular pressures increased in response to corticosteroids can be blinded by the resultant pressure increases. Long continued use of topical steroids can hasten, if not actually cause, cataractous changes in crystalline lenses. The foregoing are big risks to run for the dubious benefits to be obtained by incorporating corticosteroids in eye prescriptions without definite indications.

How, then, should the red eye be treated? When a patient presents himself or herself complaining of a red eye, an appropriate examination must answer a number of questions. Is the redness due solely to dilation and filling of superficial conjunctival vessels? Is the redness limited to the perilimbal zone (the junction between the white sclera and the clear cornea) and is this redness due to dilatation of vessels deep to the conjunctiva? Is the redness due to extra-vascular blood beneath the conjunctiva? Is the corneal surface uniformly lustrous and free of foreign bodies, erosions or ulcerations? Are the deeper layers of the cornea clear, free of edema or depositions on the endothelial surface? Is the aqueous humor in the anterior chamber clear, free of particulate material or excessive protein? Is the angle between the anterior surface of the iris and the posterior surface of the cornea a wide angle or an extremely narrow or almost nonexistent angle, i.e., is the peripheral iris touching the cornea? Are the other media clear? Is the intraocular pressure normal? Some of these questions can be answered without use of a slit lamp biomicroscope, but several require such an instrument. Treatment to be most appropriate depends upon the proper answers.

If the cornea and other media are clear, if vessel dilatation is limited to conjunctival vessels, if there is a purulent or mucopurulent discharge, if the intraocular pressure is within the normal range and if the pupil is moving freely, steps which can be taken are (1) a smear of material from the eye for microscopic examination and (2) a culture for identification of the causative organism and its sensitivity or resistance to the more commonly used bacteriostatic and antibiotic drugs.

Following smear and culture, treatment may be begun with sodium sulfacetamide, sulfisoxazole diolamine, with a combination product containing neomycin and polymyxin B or with neomycin, polymyxin B and bacitracin. Solutions, at three- or four-hour intervals, are preferred for ambulant patients because they interfere less with vision, but ointments are available if preferred. Ointments should not be used in cases in which there is an epithelial defect (as they may retard healing) and, also, should not be used when a patient is to be referred to an ophthalmologist whose examination would be made made more difficult by "greasy" lids, conjunctivas and corneal surfaces. If the smear indicates organisms uniquely sensitive to chloramphenicol, colistin, gentamycin or other antibiotic, one of these, of course, should be prescribed.

If subsequent reports from bacteriology disclose *in vitro* resistance to the drug prescribed *and if the eye is not responding clinically*, the prescription can be changed to a drug to which the laboratory reports sensitivity. Once begun, medications should be used for at least five days and patients should be cautioned not to discontinue their use at the first

**This article brings a warning in regard to the use of steriods by physicians other than ophthalmologists who are called upon to treat the eyes. It provides detailed information for the appropriate examination for the patient complaining of red eye, for instance, as well as for indications that actually warrant the use of steroids in treatment. Dr. Morgan was Director of the Eye Clinic, Eye Research Foundation of Missouri at the time this paper was written. He is now practicing medicine in Oklahoma City, Okla.**

sign of improvement. Patients should also be told to be sure that medications come in contact with infected tissues. Most physicians will find that having the patient lie down and hold the lids apart while instilling the medication is the most satisfactory method of insuring effective treatment. Holding the lids apart is particularly necessary if ointments are being used, as the lashes quite commonly will intercept the ointment if the lids are unrestrained.

If the redness is limited to the perilimbal zone, if the pupil is small or immobile and if the eye is photophobic, a quite likely diagnosis is iritis. This can result from a corneal foreign body, from an intraocular foreign body, from herpes simplex keratitis, from inflammation of adjacent or remote tissues or from no apparent focal phenomenon anywhere. Such patients must be examined by slit lamp biomicroscope and should be followed by an ophthalmologist. Untreated or improperly-treated iritis can result in secondary cataract, glaucoma and other complications.

If the redness is generalized, if there is severe pain around the eye, if the pupil is mid-dilated and unresponsive, if vision is decreased and if the cornea is steamy or cloudy, a diagnosis of acute angle closure glaucoma must be ruled out. After checking the pressure and finding it elevated, immediate referral *as an emergency* to an ophthalmologist is indicated. Significant visual loss can occur overnight if the intraocular pressure is high enough.

If a fine stream of isotonic saline cannot dislodge a foreign body imbedded in the cornea, further attempts to remove the foreign body should be made at the slit lamp biomicroscope where depth of corneal penetration can be assessed accurately. Corneal thickness centrally is approximately 0.6 mm and peripherally no more than 1.0 mm. Bevels on many needles are as long or longer than corneal thickness and must be used with considerable care in the removal of foreign bodies. In the vast majority of cases, there is no reason to use steroids following removal of foreign bodies.

If a foreign body is loose in one of the fornices, removal with a moistened cotton-tipped applicator can afford immediate relief. The sulcus below the tarsal plate of the upper lid is a common site of non-imbedded conjunctival foreign bodies. Sawdust chips and small foreign bodies of vegetable origin can be extremely difficult to see without adequate magnification. Fluorescein staining followed by examination with ultraviolet or other blue light will frequently outline a foreign body which is otherwise practically invisible. Corticosteroid-containing drops should not be used routinely following removal of non-imbedded foreign bodies.

Great things can be done for patients' eyes without the use of corticosteroids. Great harm can be done by inappropriate use of corticosteroids. In the spirit of *primum noli nocere*, use of steroids should be reserved for those few conditions for which their careful use can benefit the patient uniquely. With rare exceptions, corticosteroid eye medications should be prescribed only by ophthalmologists.

*Reprints:* *Philip E. Morgan, M.D.*
*Associate Works Medical Director, 910*
*Western Electric Co., Inc.*
*7725 W. Reno*
*Oklahoma City, Okla. 73125*

# In Memoriam

**David B. Flavan**, M.D., 4400 Lindell, St. Louis 63108; a graduate of St. Louis University, 1927; member of St. Louis Medical Society; age 81; died Nov. 27, 1977.

**Albert C. Stutsman**, M.D., 141 N. Meramec Ave., Clayton 63105, a graduate of the University of Virginia, 1931; member of St. Louis Medical Society; age 72; died Nov. 11, 1977.

**Oscar P. Hampton, Jr.**, M.D., 8153 Stanford Ct., St. Louis 63130; a graduate of the University of Tennessee, 1928; member of St. Louis County Medical Society; age 72; died Dec. 9, 1977.

**Paul B. Webb, Sr.**, M.D., 3948 Wyoming, St. Louis 63116; a graduate of St. Louis University, 1921; member of St. Louis Medical Society; age 81; died Dec. 19, 1977.

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—WILLIAM SHAKESPEARE, *MACBETH*, ACT II, SC. 2

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[1] Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974

**Brief Summary of Prescribing Information**
**ADAPIN®** (doxepin HCl) Capsules

**Indications**—Relief of symptoms of anxiety and depression.

**Contraindications**—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

**Warnings**—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, or on effect in nursing infants.

Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

In patients who may use alcohol excessively potentiation may increase the danger inherent in any suicide attempt or overdosage.

**Precautions**—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

**Adverse Reactions**—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

Adverse effects occurring infrequently include extrapyramidal symptoms, gastrointestinal reactions, secretory effects such as sweating, tachycardia and hypotension. Weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash and pruritus may also occur.

**Dosage and Administration**—In mild to moderate anxiety and/or depression: 10 mg to 25 mg t.i.d. Increase or decrease the dosage according to individual response. **Usual optimum daily dosage is 75 mg to 150 mg** per day, not to exceed 300 mg per day.

Antianxiety effect usually precedes the antidepressant effect by two or three weeks.

**How Supplied**—Each capsule contains doxepin, as the hydrochloride: 10 mg, 25 mg and 50 mg capsules in bottles of 100 and 1000.

For complete prescribing information please see package insert or PDR.

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ausea and vomiting often associated with vertigo.*

**Dosage for Vertigo***—The usual adult dosage for Antivert/25
s one tablet t.i.d.

RIEF SUMMARY OF PRESCRIBING INFORMATION

INDICATIONS. Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

*Effective:* Management of nausea and vomiting and dizziness associated with motion sickness.

*Possibly Effective:* Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert (meclizine HCl) during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12-15 day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

*Usage in Children:* Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

*Usage in Pregnancy:* See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

More detailed professional information available on request.

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ELDERLY CARDIAC
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**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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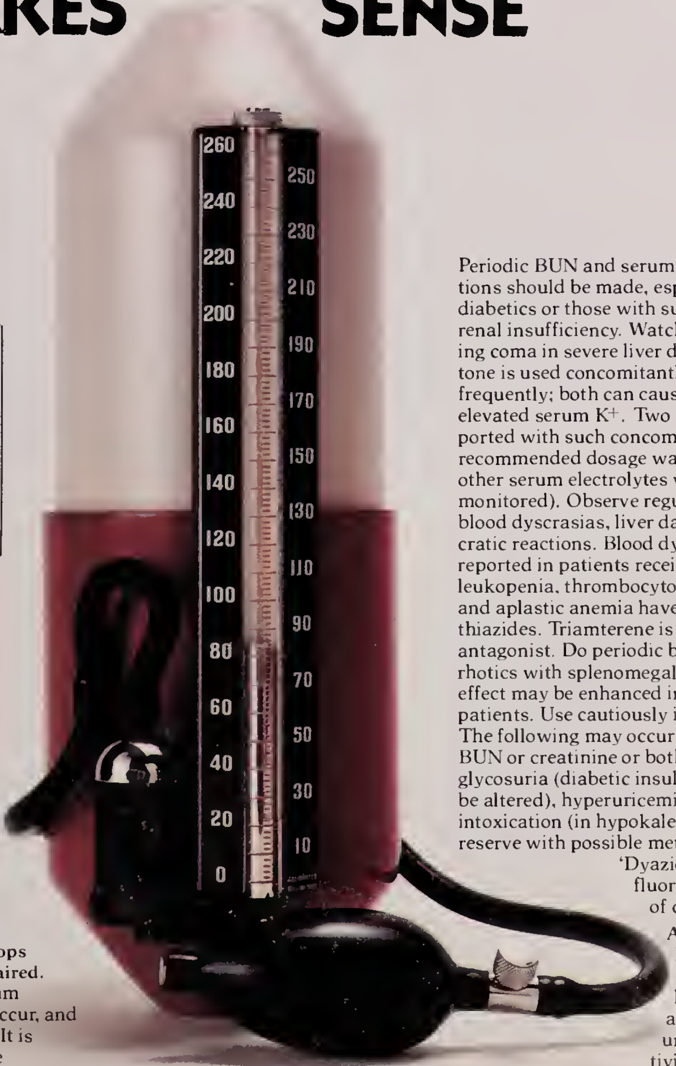

**Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:**

* Warning
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

**Contraindications:** Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum $K^+$ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict $K^+$ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum $K^+$ frequently; both can cause $K^+$ retention and elevated serum $K^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL OF HYPERTENSION.* SERUM $K^+$ AND BUN SHOULD BE CHECKED PERIODICALLY. (SEE WARNINGS SECTION.)**

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# President's Message

## MEDICINE AND THE NEWS MEDIA

In 1976, the Department of HEW published a list of physicians who, according to HEW, had received more than $100,000 in Medicare funds in 1975. It was alleged that the Freedom of Information Act enforced this disclosure. The release from the Department of HEW received widespread coverage by the news media; in fact, it was in boldface print in our local papers. Doctors' names were listed and there was a gentle innuendo that these physicians were suspect for their charges in the delivery of health care. In September, 1977, the Secretary of HEW apologized because the figures were not accurate. The error rate in the initial news release was 60%. It does seem strange that the news media, which saw fit to widely publicize the first release, buried the corrected version in small print on page 7. Does this mean that once an organization has been crucified by the press, any legitimate rebuttal is no longer newsworthy?

Too often, the press and news media tend to engage in sensationalism. News is sometimes slanted so that the public is not afforded a true picture of what is being presented. This provides a disservice not only to the public but also to those who are attempting to deliver quality health care. The only group who can benefit from this type of reporting are the cultists. Many individuals will spend needless financial resources seeking a fountain of hope. Does this represent fair and objective dissemination of news?

**Howard J. McAlhany, M.D.**

The public must insist that if the press does represent the "Fourth Branch of Government," then it must assume some responsibility in dealing with our social and civic morality. There is much concern because this is not being undertaken in this country. If we hope to maintain a free enterprise system in this country, then we must insist that all organizations follow a course that is designed to improve the needs of our citizens.

FOUNDED 1924
AUXILIARY TO THE MISSOURI STATE MEDICAL ASSN.

# MSMA Auxiliary

**Mrs. W. Jack Stelmach**
**President**

**Please welcome Mrs. Donald C. Sanders of Kansas City as my guest columnist for this issue. As our Auxiliary's AMA-ERF Chairman, Mrs. Sanders brings information of importance to every physician who is interested in supporting medical education and scientific research.**

## AMA-ERF

*What is it? What does it do? How can I participate?*

AMA-ERF stands for *American Medical Association Fducation Research Foundation.* It is engaged principally in supporting medical education; providing financial assistance to medical students, interns and residents; fostering scientific and medical research; and providing funds for rural- and community-oriented, pilot health projects.

Through the AMA-ERF program, the medical schools in Missouri received $34,148.12 in 1976 from either designated or undesignated gifts. The following schools were recipients of funds:

Washington University School of Medicine, St. Louis
University of Missouri School of Medicine, Columbia
St. Louis University School of Medicine, St. Louis
University of Missouri School of Medicine, Kansas City
Kirksville College of Osteopathy and Surgery (All designated)

Some gifts are also designated for the Student Loan Fund. Because the loan plan is guaranteed by the AMA-ERF, participating banks will lend $12.50 for each $1 held in the guaranteed fund. Where can $1 buy more?

We have been privileged this year to have one of our own MSMA members as President of the AMA-ERF—Dr. Hubert A. Ritter of St. Louis.

Physicians and Auxiliary members in Missouri gave a total of $18,433.59 to the AMA-ERF in 1976. We know you are interested in medicine in the future—your future colleagues and their education. Won't you please take time to participate?

Three or four times a year, you receive a request to contribute from the AMA. Your gift can be sent in directly or you can send it through your local Auxiliary as designated or undesignated for a medical school of your choice or for the guaranteed loan fund. The Auxiliary members are working very hard in many ways to raise money to help further medicine in the future, as we know you are.

I'm sure that we, the medical citizens of Missouri, will do our share to promote the AMA-ERF in the years ahead.

**Mrs. Donald C. Sanders**
AMA-ERF Chairman, MSMA Auxiliary

# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D., ST. JOSEPH

### Buchanan County Medical Society

Dr. Edmund W. Kline was installed as President of the Buchanan County Medical Society at the annual dinner-dance at the Benton Club in St. Joseph, on Dec. 1, 1977.

Other officers are Dr. Carl K. Ness, President-Elect; Dr. Charles N. Mullican, Vice-President; Dr. R. Philip Acuff, Secretary; and Dr. Gary A. Dyer, Treasurer.

Dr. Clement C. DuMont begins a three-year term as a member of the Board of Censors. Delegates to the Missouri State Medical Association are Dr. Allen I. Herman and Dr. Edward M. Stevens. Alternate Delegates are Drs. Gerald F. Fox, B. H. Moen, G. S. Paulson and Robert R. Stuber.

Dr. Edward M. Beheler was named to the Committee on Public Policy and Dr. Edward H. Andres was named to a five-year term on the Board of Trustees.

Dr. Richard O. Craig, retiring President, was made a member of the Executive Secretary Committee.

Dr. Craig noted that the platform set forth a year ago included the objectives of training paramedical personnel and the public in use of cardiopulmonary resuscitation, that fathers be permitted in the hospital delivery rooms and the training of coaches and school personnel in the prevention and proper handling of athletic injuries. The first two objectives have been achieved and a program for the third objective is underway.

In his inaugural address, Dr. Kline challenged the profession to a more active role in the control of increasingly higher medical costs.

Entertainment was provided by the Missouri Western State College Swing Choir. Dance music was provided by a trio. Arrangements were made by Mrs. Wallace McDonald.

Special guests were Mr. and Mrs. Ray McIntyre of Jefferson City.

R. Philip Acuff, M.D., *Secretary*

### Clay County Medical Association

Dr. Robert D. Williams of North Kansas City was elected President-Elect of Clay County Medical Association at the November, 1977 meeting.

He will succeed Dr. William D. Soper, Liberty, who assumed the Presidency on Jan. 1, 1978. Dr. William R. McPhee is the Immediate Past-President.

Dr. Carl R. Slaughter, North Kansas City, was elected Vice-President and Dr. F. Anthony Thomas, North Kansas City, was elected Secretary-Treasurer.

Dr. Robert T. Littlejohn of North Kansas City was elected to a three-year term on the Board of Censors.

Elected to the Association's Executive Committee were Drs. John C. Hagan, III, Jerry W. Cook, Carroll D. Patterson and Paule Revare.

Elected as Delegates to the MSMA were Dr. Donald A. Fakhoury, Dr. Donald E. Kuenzi, Dr. McPhee and Dr. Soper.

## SIXTH DISTRICT

COUNCILOR
R. JOHN TORONTOW, NEVADA

### West Central Missouri Medical Society

The West Central Missouri Medical Society held a dinner meeting on December 7, 1977.

The election of officers was held during the business meeting. Newly elected officers are Drs. William W. Haynie, Butler, President; Roy W. Pearse, Nevada, Vice-President; Rolla B. Wray, Nevada, Secretary-Treasurer. Delegates and Alternate Delegates are Drs. Charles A. Lusk and Arthur L. Hansen, Bates County; Roy W. Pearse and L. M. Magruder, Vernon County; Alfred W. Eklund and Edward S. Jones, Cass County; Glen H. Reed and Robert H. Brownsberger, St. Clair County; and Robert L. Magee and Rolla B. Wray, Cedar County.

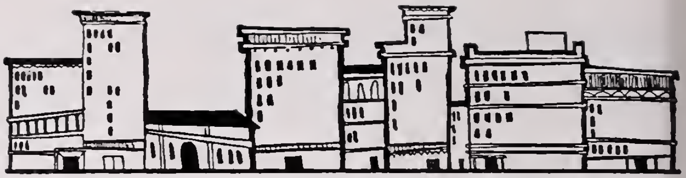
Dr. R. John Torontow, Sixth District Councilor and Dr. Pearse, Vice-Councilor were commended for their continued work and efforts on behalf of the Medical Society.

It was decided that the Society will meet six times each year instead of four times. Four of the meetings will feature scientific lectures, one will be with the area high school coaches and the sixth will be the election meeting.

The next meeting will be held in February, 1978.

W. W. Haynie, M.D., *Secretary*

# From the Medical Schools



## UNIVERSITY OF MISSOURI-KANSAS CITY

The University of Missouri was awarded a new contract by the Bureau of Health Manpower (HRA/Dhew) to continue support for the Western Missouri Area Health Education Center Program in response to the 1976 federal health manpower legislation. The award of $909,891 is for a one-year training period ending Sept. 30, 1978. The AHEC program originally funded 11 health science centers in 1972, including the University of Missouri-Kansas City (UMKC), to conduct research and demonstration efforts to the problems of health manpower supply and distribution. The geographical target area for UMKC was the 38 western counties of Missouri ranging from the Iowa to Arkansas border.

The current legislation modified some previous requirements and altered the initial University of Missouri-Kansas City Project. However, the basic goals and philosophy remain unchanged: they are to improve the supply and distribution of the health professionals serving the people of the 38 counties of western Missouri. *John W. Cashman,* M.D., M.P.H. has been designated as the program director.

The School of Medicine has received a gift of $14,600 from the Goppert Bank and Trust Company which will enable the School to evaluate its six-year graduates in comparison to its sister school in Columbia. The Office of Medical Education will administer this gift. *Louise M. Arnold,* Ph.D., coordinator for research and assistant professor of sociology, will be the project director.

*Dr. Richard M. Stein* was a Visiting Docent at the School of Medicine from October 31 through November 11. Dr. Stein is chief of the Renal Section at the Veteran's Administration Hospital in the Bronx, New York; associate professor of medicine at the Mount Sinai School of Medicine; and chairman of the Program Advisory Committee on Dialysis and Renal Disease at the Veterans Administration Central Office in Washington, D. C. He made daily rounds with the Docent Teams, discussed clinical problems with the house-staff and gave a University Hour presentation entitled the "Pathophysiology of Chronic Renal Disease."

*Dr. Jerome Hershman* was a Visiting Docent on November 16-18. Dr. Hershman is a professor of medicine at the University of California-Los Angeles and chairman of the Endocrine Department at the Wadsworth Veterans Administration Hospital in Los Angeles. He has published more than 200 articles in the field of endocrinology and was one of the pioneers in the utilization of TRH in clinical medicine. His University Hour presentation was entitled "Neck Radiation and Thyroid Carcinoma."

## WASHINGTON UNIVERSITY

The School of Medicine has received a three-year grant of more than $300,000 from the National Institutes of Health to fund an Arthritis Center.

*Bevra Hahn,* M.D., assistant professor of medicine and director of the Arthritis Center, says the major thrusts of the grant will be educational and community programs.

Washington University received one of 15 grants to establish arthritis centers across the country. One of the main responsibilities of the centers is to educate students in medical, nursing and paramedical training programs in how to care for the arthritic patient.

A series of video tapes are planned to inform arthritis patients about medication, quackery in arthritis, what kind of exercises they should do, available surgery and self-help devices.

Research to study the prevention of bone softening which occurs in arthritis patients who receive long-term cortisone treatment also is funded.

## UNIVERSITY OF MISSOURI-COLUMBIA

The Liaison Committee on Graduate Medical Education has accredited a neurology residency training program at the University of Missouri Medical Center and Harry S. Truman Veterans Hospital on a provisional basis for three years.

The School of Medicine and Medical Center now offers specialty training in 21 medical fields, ranging from anesthesiology to urology. The neurology program will provide three years of training in the specialty following graduation from medical school.

Member organizations of the Liaison Committee which approved the new program include the American Board of Medical Specialties, the American Hospital Association, American Medical Association, Association of American Medical Colleges and the Council of Medical Specialty Societies.

The residency training program in neurology will be under the direction of *Dr. J. Donald Easton,* department chairman, who joined the faculty in July. A graduate of the University of Washington School of Medicine in 1964, he took his postgraduate training at Cornell Medical Center in New York. He became board-certified in psychiatry and neurology in 1971.

Between 1970 and 1973, Dr. Easton was associated with the University of California Hospital in San Diego. He was chief of neurology at Southern Illinois University School of Medicine before coming to Missouri.

Other members of the neurology faculty are *Drs. John Byer, James D. Dexter* and *David Sherman.*

## SAINT LOUIS UNIVERSITY

The National Medical Association, Section on Radiology, has established the Annual William E. Allen, Jr. Lecture in honor of internationally-celebrated radiologist *William E. Allen, Jr.,* M.D., F.A.C.R., clinical professor of radiology.

Dr. Allen

Members of the Section on Radiology voted during a recent Association meeting in Los Angeles, Calif., to enact the Annual Lecture in honor of Dr. Allen's efforts in founding the Section on Radiology in 1949. The first Lecture will be delivered at the next meeting of the National Medical Association in Washington, D. C. in 1978.

*Dennis O'Connor,* M.D. has been appointed acting medical director at Cardinal Glennon Memorial Hospital for Children and acting chairman of the Department of Pediatrics, St. Louis University School of Medicine. Announcement of the appointments was made jointly by Cardinal Glennon Memorial Hospital for Children and the School of Medicine.

Dr. O'Connor succeeds the late *Arthur E. McElfresh,* M.D., who died on Oct. 29, 1977. Dr. McElfresh held the directorship and chairmanship for the past 12 years.

Since 1973, Dr. O'Connor has served as assistant professor of pediatrics at St. Louis University School of Medicine and director of Inpatient Services at Cardinal Glennon Memorial Hospital for Children where he has been treating children suffering from leukemia, cancer and other blood disorders in the Hematology-Oncology Clinic.

Dr. O'Connor

He was the recipient of a Fellowship in Infectious Disease in the Department of Pediatrics at St. Louis University School of Medicine from 1972 to 1973. Prior to coming to the School of Medicine, Dr. O'Connor served as an epidemiology intelligence officer, Center for Disease Control, U. S. Public Health Service, Houston, Tex.

Nearly $1 million for a research grant to train and develop investigators in heart and vascular diseases research has been renewed for a total five-year period to the Departments of Biochemistry and Physiology by the National Institutes of Health.

Through the grant, students are trained in the biomedical sciences of nutrition, metabolism and basic physiology as each applies to the cardiovascular system. The grant also provides opportunities for students wishing to specialize in biochemistry or physiology to gain advanced research training in these disciplines as part of their medical education.

Two research grants for more than $413,000 to conduct investigations of basic muscle research have been awarded by the National Institutes of Health and the National Science Foundation to *Anthony N. Martonosi,* M.D., professor of biochemistry.

A five-year grant for $353,000 from NIH will enable Dr. Martonosi to study the biochemistry of sarcoplasmic reticulum, a key membrane system within muscle cells which regulates muscle contraction or relaxation.

A three-year grant for more than $60,000 from the National Science Foundation will support Dr. Martonosi's studies of the properties of sarcoplasmic reticulum during development.

# New Members

**Jerry H. Allen,** M.D., 106 Elm, Washington 63090, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Allen is a native of New Mexico, received his preliminary education at Drury College and his M.D. degree at the University of Missouri in 1972. He specializes in pediatrics.

**Larry Gene Barnes,** M.D., 113 W. Hickory, Neosho 64850, has become a member of Ozark County Medical Society. Dr. Barnes is a native of Anderson, received his preliminary education at the University of Missouri and his M.D. degree at Tulane University in 1974. He specializes in internal medicine.

**Michael George Benne, Jr.,** M.D., Emergency Dept., Methodist Medical Center, 7th to 9th on Faraon, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Benne is a native of Hammond, Ind., received his preliminary education at Butler University and his M.D. degree at Indiana University in 1964. He specializes in emergency medicine.

**Edward Betz,** M.D., Dept. of Medicine, Kaiser Hospital, 13652 Cantara, Pandram City, Calif. 91407, has become a member of St. Louis Medical Society. Dr. Betz is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine.

**Humberto Boccardo,** M.D., 915 N. Grand, St. Louis 63106, has become a member of St. Louis Medical Society. Dr. Boccardo is a native of Bolivar, Venezuela, received his preliminary education at the University of Madrid and his M.D. degree at Central University in Venezuela in 1969. He specializes in cardiology.

**John W. Bowers,** M.D., 1900 S. National, Springfield 65804, has become a member of Greene County Medical Society. Dr. Bowers is a native of Jonesboro, Ark., received his preliminary education at the University of Iowa and his M.D. degree at the University of Arkansas in 1973. He specializes in ophthalmology.

**Richard James Brennan,** M.D., 1335 Village Dr., St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. Brennan is a native of Memphis, Tenn., received his preliminary education at Creighton University and his M.D. degree at Creighton University in 1967. He specializes in orthopedic surgery.

**Merlin Dean Brown,** M.D., 3306 Mitchell Ave., St. Joseph 64507, has become a member of Buchanan County Medical Society. Dr. Brown is a native of St. Joseph, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1974. He specializes in family medicine.

**J. R. Burns,** M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Burns is a native of Newark, N. J., received his preliminary education at Johns Hopkins University and his M.D. degree at St. Louis University in 1973. He specializes in urology.

**Daniel Callahan,** M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Callahan is a native of Baltimore, Md., received his preliminary education at LaSalle College and his M.D. degree at Jefferson Medical College in 1971. He specializes in plastic surgery.

**Mario P. Canlas,** M.D., 205 Medical Towers Springfield 65804, has become a member of Greene County Medical Society. Dr. Canlas is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D degree at the University of the Philippines in 1967 He specializes in neurological surgery.

**Robert Francis Cerza,** M.D., 416 N. 7th, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Cerza is a native of Chicago, Ill., received his preliminary education at Harvard University and his M.D. degree at Northwestern University in 1970. He specializes in anesthesiology.

**Nallathambi Charles,** M.D., Medical Village Festus 63028, has become a member of Jefferson County Medical Society. Dr. Charles is a native of Madras, India, received his preliminary education at Interscience Annamali University and his M.D degree at Calcutta University in 1959. He is in the general practice of medicine.

**Nelson G. Escobar,** M.D., 602 Jules, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Escobar is a native of Talara, Peru, received his preliminary education at Ignacio Merino High School and College, Talara and his M.D. degree at the University of Salamanca in Spain in 1965. He specializes in neurological surgery.

**Fernando Fernandes, Jr.,** M.D., Crestview Village #20-D, St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. Fernandes is a native of Cuernavaca, Mexico, received his preliminary education at the University of Mexico and his M.D. degree at the University of Mexico in 1970. He specializes in pediatrics, endocrinology and emergency medicine.

**Jimmy Don Frogge,** M.D., 3105 McClelland Blvd., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Frogge is a native of Oklahoma City, Okla., received his preliminary education at Oklahoma State University and his M.D. degree at the University of Kansas in 1969. He specializes in urology.

**Philip George,** M.D., 35 N. Central Ave., Clayton 63105, has become a member of St. Louis County Medical Society. Dr. George is a native of Winston-Salem, N. C., received his preliminary education at the University of the South and his M.D. degree at Washington University in 1966. He specializes in orthopedic surgery.

**Jordan H. Ginsburg,** M.D., 4960 Audubon Ave., St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Ginsburg is a native of Chicago, Ill., received his preliminary education at the University of Michigan and his M.D. degree at the University of Illinois in 1972. He specializes in orthopedic surgery.

**Robert W. Gunn,** M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Gunn is a native of West Virginia, received his preliminary education at Fisk University and his M.D. degree at Meharry Medical College in 1974. He specializes in ophthalmology.

**Charles Gordon Hermann,** M.D., 925 Powell, St. Joseph Hospital, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Hermann is a native of Lincoln, Neb., received his preliminary education at the University of Nebraska and his M.D. degree at the University of Nebraska in 1947. He specializes in pathology.

**Ching Fa Hsu,** M.D., 3759 S. Jefferson Ave., St. Louis 63118, has become a member of St. Louis Medical Society. Dr. Hsu is a native of Taiwan. He received his M.D. degree at Taipei Medical College in Taiwan in 1967. He specializes in internal medicine.

**Patrick Thomas Hunt,** M.D., 702 Jules, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Hunt is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at the University of Kansas in 1973. He specializes in radiology.

**William Semple Irvin,** M.D., Dept. of Medicine, University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Irvin is a native of El Paso, Tex., received his preliminary education at Stanford University and his M.D. degree at Stanford University in 1961. He specializes in internal medicine and rheumatology.

**Yorckay C. Ishizawar,** M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Ishizawar is a native of Japan, received his preliminary education at Taipel, Chun-Kon High School and his M.D. degree at China Medical College in 1969. He specializes in surgery.

**George Katsantonis,** M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Katsantonis is a native of Greece, received his preliminary education at Public High School in Athens and his M.D. degree at the National University of Athens in 1971. He specializes in otolaryngology.

**Gary A. Kell,** M.D., 1550 E. Sunshine, Springfield 65804, has become a member of Greene County Medical Society. Dr. Kell is a native of Canton, Ill., received his preliminary education at Drury College and his M.D. degree at the University of Missouri in 1971. He specializes in internal medicine.

**Robert M. Kolodner,** M.D., 4940 Audubon Ave., St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Kolodner is a native of Baltimore, Md., received his preliminary education at Harvard University and his M.D. degree at Yale University in 1974. He specializes in psychiatry.

**Daniel J. Ladd,** M.D., 3015 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis County Medical Society. Dr. Ladd is a native of Frost, Ohio, received his preliminary education at The Johns Hopkins University and his M.D. degree at the University of Maryland in 1969. He specializes in pathology.

**Robert G. Laffoon,** M.D., 204 Ruby, Sweet Springs 65351, has become a member of Pettis County Medical Society. Dr. Laffoon is a native of Union Star, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1960. He specializes in general surgery and family practice.

**Laurence Arvin Levin,** M.D., 4949 Forest Park, St. Louis 63108, has become a member of St. Louis County Medical Society. Dr. Levine is a native of Brooklyn, N. Y., received his preliminary education at Hofstra University and his M.D. degree at New York University in 1971. He specializes in otolaryngology.

**Robert D. Lewis,** M.D., 3660 Vista, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Lewis is a native of Thomasville, Ga., received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1975. He specializes in ophthalmology.

**Troy E. Major, II,** M.D., 1630 N. Jefferson, Springfield 65802, has become a member of Greene County Medical Society. Dr. Major is a native of Springfield, received his preliminary education at Drury College and his M.D. degree at the University of Missouri in 1970. He specializes in dermatology.

**Ashok R. Mallya,** M.D., 5400 Arsenal, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Mallya is a native of India, received his preliminary education at Parle College and his M.D. degree at Seth G.S. Medical College, Bombay in 1973. He specializes in psychiatry.

**Vijaya K. Mangunta,** M.D., Box 534K, Rt. 2, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Mangunta is a native of India, received his preliminary education at Andhra Loylol College and his M.D. degree at Osmania Medical College in India in 1971. He specializes in emergency medicine.

**Larry Benz Marti,** M.D., 1100 West 10th, Rolla 65401, has become a member of Mid-Missouri County Medical Society. Dr. Marti is a native of Mountain View, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1967. He specializes in orthopedic surgery.

**James Joseph McMillen,** M.D., 900 N. Belt, St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. McMillen is a native of Elmira, N. Y., received his preliminary education at the University of Maryland and his M.D. degree at the University of Maryland in 1974. He specializes in internal medicine.

**C. Scott Molden,** M.D., 114 N. Taylor, St. Louis 63108, has become a member of St. Louis County Medical Society. Dr. Molden is a native of St. Louis, received his preliminary education at the DePauw University and his M.D. degree at Case Western Reserve in 1972. He specializes in internal medicine.

**George Owen Paddock,** M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Paddock is a native of Elmhurst, Ill., received his preliminary education at the University of Arkansas and his M.D. degree at the University of Arkansas in 1970. He specializes in ophthalmology.

**Ralph Burton Pfeiffer, Jr.,** M.D., 1550 E. Sunshine, Springfield 65804, has become a member of Greene County Medical Society. Dr. Pfeiffer is a native of Birmingham, Ala., received his preliminary education at Tulane University and his M.D. degree at the University of Alabama in 1970. He specializes in general surgery.

**Dan E. Potts,** M.D., 114 N. Taylor Ave., St. Louis 63108, has become a member of St. Louis Medical Society. Dr. Potts is a native of Wichita, Kan., received his preliminary education at Baylor University and his M.D. degree at Washington University in 1972. He specializes in internal medicine and pulmonary diseases.

**Vincent Previti,** M.D., 452 S. Market, Springfield 65806, has become a member of Greene County Medical Society. Dr. Previti is a native of New Jersey, received his preliminary education at Franklin and Marshall College and his M.D. degree at Hahnemann Medical College in 1967. He specializes in surgery.

**Jean L. Ray,** M.D., 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis Medical

Society. Dr. Ray received her preliminary education at the Highland School of Nursing and her M.D. degree at the University of Rochester in 951. She specializes in family practice.

**Harold LeRoy Sanders**, M.D., 1502 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Sanders is a native of Leavenworth, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1966. He specializes in diagnostic radiology.

**William Schnarr,** M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Schnarr is a native of St. Louis, received his preliminary education at St. Mary's College and his M.D. degree at the University of Missouri in 1971. He specializes in pulmonary medicine.

**James T. Shaeffer,** M.D., 118 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Shaeffer is a native of McKessport, Pa., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1966. He specializes in orthopedic surgery.

**Robert T. Spangler,** M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Spangler is a native of Canton, Ohio, received his preliminary education at John Carroll University and his M.D. degree at St. Louis University in 1972. He specializes in general surgery.

**David L. Stabenow,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Stabenow is a native of Sioux Falls, S. D., received his preliminary education at the University of Georgia and his M.D. degree at Washington University in 1968. He specializes in dermatology.

**Stephen J. Steska,** M.D., 6504 Hoffmann, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Steska is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1976. He specializes in emergency room medicine.

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**Wayne Stillings**, M.D., 4989 Barnes Hospital, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Stillings is a native of Appleton, Wis., received his preliminary education at Oberlin College and his M.D. degree at Washington University in 1975. He specializes in psychiatry.

**Adelaide Temporal**, M.D., 10048 Hilltop Dr., St. Louis 63128, has become a member of St. Louis Medical Society. Dr. Temporal is a native of Manila, Philippines, received her preliminary education at Centro Escolar University and her M.D. degree at Manila Central University, Philippines in 1952. She specializes in general practice and obstetrics and gynecology.

**John H. Uhlemann**, M.D., 1301 Boonslick, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Uhlemann is a native of Evanston, Ill., received his preliminary education at Grinnell College and his M.D. degree at Washington University in 1972. He specializes in dermatology.

**Richard Coburn Walters**, M.D., 7511 Big Bend Blvd., Webster Groves 63119, has become a member of St. Louis County Medical Society. Dr. Walters is a native of Elizabeth, N. J., received his preliminary education at the University of Illinois and his M.D. degree at Washington University in 1973. He specializes in dermatology.

**Delane Francis Wiench**, M.D., 1000 W. 10th, Rolla 65401, has become a member of Mid-Missouri County Medical Society. Dr. Wiench is a native of Coldspring, Minn., received his preliminary education at the University of North Dakota and his M.D. degree at the University of Colorado in 1970. He specializes in clinical and anatomic pathology.

**Francis Xynos**, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Xynos is a native of Cordoba, Argentina. He received his M.D. degree at the National University of Cordoba in 1970.

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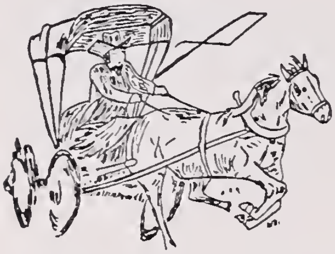
# *Missouri Medicine in Review*



## FORTY YEARS AGO

"Ye Ed *thanks the library of the University of Missouri-Kansas City School of Medicine for making available the reference books used in this column.*"

*The Journal of the Missouri State Medical Association* is one of 33 journals published by state medical organizations and affiliated with the Cooperative Medical Advertising Bureau with offices in the Headquarters Building of the American Medical Association. All such journals look to *The Journal of the American Medical Association* for guidance and example and to each other for standardization. The trend for the state journals is to conform more nearly in size with *The Journal of the American Medical Association.*

The Buchanan County Medical Society was called to order at the Missouri Methodist Hospital at 8 PM on December 1 by President Charles Greenberg with 35 members present. It was moved by Dr. W. R. Moore and seconded by Dr. Paul Forgrave that necessary funds be taken from the treasury to buy a screen for motion pictures and slides. Drs. W. R. Moore and Gregg Thompson were appointed as the committee to buy the screen. The following officers were elected: President, Dr. G. T. Bloomer; Vice-President, Dr. F. X. Hartigan; Secretary, Dr. O. Earl Whitsell; treasurer, Dr. J. M. Bell; and Censor (three years), Dr. C. S. Branson.

## TWENTY-FIVE YEARS AGO

"Every man owes a part of his time and his money to the profession in which he is engaged." —Theodore Roosevelt.

The Pettis County Medical Society held a dinner meeting at the Old Missouri Homestead in Sedalia on November 17 to honor one of their revered members who had completed 50 years in the practice of medicine in October. H. A. Hite, M.D., Green Ridge, was the recipient of his Society's esteem on this pleasant occasion.

The South Central Counties Medical Society met at the Horton Hotel in Willow Springs for dinner on November 19. The following members and visitors were present: Drs. S. W. Connor and A. C. Ames, Mountain Grove; Garrett Hogg, Jr., Cabool; T. J. Burns and S. G. Kramer, Houston; M. B. Perkins, Willow Springs; T. R. Skaggs, Mountain View; E. C. Bohrer and Rollin H. Smith, West Plains; C. W. Cooper, Thayer; Ned White and J. G. Siceluff, Springfield. It was voted to place R. A. Ryan, M.D. on the honor list.

## TEN YEARS AGO

The need for "positive leadership" and "visible action" by the medical profession and all other members of the health team were emphasized to the House of Delegates by Milford O. Rouse, M.D., President, at the 21st American Medical Association Clinical Convention on Nov. 26-29, 1967 in Houston. He declared that "our future depends on the preservation and strengthening of freedom for all people of our nation." Dr. Rouse, who said he is among those who "fear that freedom is in danger," stated that danger does not come substantially from the few persons engaged actively in trying to undermine it but, rather, from the lack of activity by the millions of citizens whose efforts are needed if freedom is to be preserved.

Dr. Carl H. Almond, Columbia, is in South Vietnam for two months. He is serving the civilian population with the AMA Volunteer Physicians in Vietnam. Dr. Almond, who specializes in thoracic and cardiovascular surgery, is associate professor of surgery at the University of Missouri School of Medicine.

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**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

MDS

**FEBRUARY, 1978**

VOLUME 75, NUMBER 2

**120th
MSMA
ANNUAL
SESSION
PRELIMINARY
PROGRAM
Page 50**

## *Special Report:*

## ACTIONS

## of the

## Missouri State Medical Association

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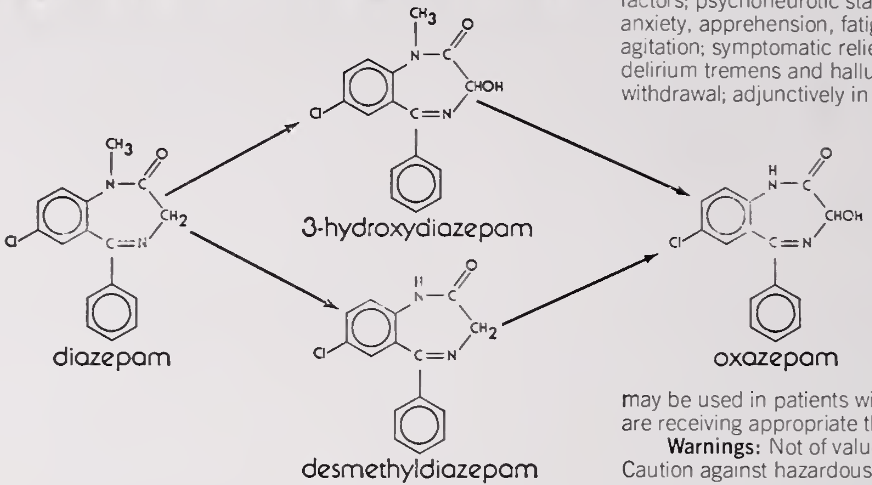
# A pharmacokinetic character all its own



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**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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## Preliminary Program
## 120th Annual Session

# MISSOURI STATE MEDICAL ASSOCIATION

**Crown Center Hotel, Kansas City** **April 13-16, 1978**

### Thursday, April 13

11:00 AM Registration of Delegates.
1:30 PM House of Delegates Meeting, opening session.
3:00 PM Reference Committee Meetings.
6:30 PM Missouri State Surgical Society Dinner and Board Meeting.
7:00 PM Cash Bar and Dinner, American Medical Women's Association.

### Friday, April 14

8:00 AM Registration.
8:30 AM Missouri University Alumni Board of Governors Breakfast Meeting.
9:00 AM General Session—*PSRO.*
Introductions: Howard J. McAlhany, M.D., Springfield, MSMA President.
Speakers: Robert B. Hunter, M.D., Sedro Woolley, Wash., Chairman, AMA Board of Trustees.
Michael J. Goran, M.D., Rockville, Md., Director, Bureau of Quality Assurance, Health Care Financing Administration.
9:00 AM *Important Topics in Infectious Diseases.*
*Host Resistance, the Forgotten Hero,* Daniel J. Stechschulte, M.D., Professor of Medicine, Director, Division of Allergy, Clinical Immunology and Rheumatology, University of Kansas Medical Center, Kansas City, Kan.
Moderator: Donald Youll, M.D., Kansas City, President, Missouri State Allergy Association.
*Antibiotics—When, Why and How Much,* E. Dale Everett, M.D., Professor of Medicine, Chief, Division of Infectious Diseases, University of Missouri-Columbia.
Moderator: Daniel Hurst, M.D., Columbia, President, Missouri Thoracic Society.
*The Annual Charles Brasher Lecture: Tuberculosis—State of the Art,* Ray G. Cowley, M.D., Director, Missouri State Chest Hospital, Clinical Professor of Medicine, University of Missouri-Columbia.
Moderator: Daniel Hurst, M.D., Columbia.
Co-Sponsored by the Missouri State Allergy Association, Missouri Thoracic Society and the Missouri Chapter, American Academy of Pediatrics.
9:30 AM *Training Session on Cardiac Pulmonary Resusitation.*
Sponsored by the Missouri Heart Association, Inc.
10:30 AM Intermission to View Exhibits.
11:00 AM *Improved Survival With Combination Therapy for Small Cell Lung Cancer,* Ben J. Throne, M.D., Kansas City.
*Carcinogens in Our Life—Fact or Fiction,* Donald R. German, M.D., Kansas City.
Sponsored by the American Cancer Society, Missouri Division, Inc.
11:00 AM *The Medical and Surgical Management of the Rheumatoid Arthritic Patient.*
Sponsored by the Missouri Orthopaedic Association.
11:00 AM *Clinical Interpretation of Microbiology Results—1978 Update,* C. Terrence Dolan, M.D., Kansas City.
Moderator: Thomas J. Fritzlen, M.D., Kansas City.
(Discussion of significance of actual results from various sides and interpretation of sensitivity testing with the presentation directed to the practitioner. Educational material will be handed out.)
Sponsored by the Missouri Society of Pathologists.
11:00 AM *The Basic Physiology of Fluid and Electrolytes in the Surgical Patient,* Andrew McCanse, M.D., Kansas City.
Sponsored by the Missouri State Surgical Society.
12:30 PM Missouri University Alumni Luncheon.
Missouri Thoracic Society Luncheon.
1:00 PM *Training Session on Cardiac Pulmonary Resusitation* (Continued).
Sponsored by the Missouri Heart Association, Inc.
1:00 PM *Pharmacological and Mechanical Cardiac Pacing in the Emergency Department.*
Speakers: Robert Ellenbass, Pharm.D., Kansas City.
Joe Waeckerle, M.D., Kansas City.
*Mobile Intensive Care Unit,* Allen Klippel, M.D., Omaha, Neb.
*Systems and Satellites,* R. R. Hannas, M.D., Kansas City.
Moderator: R. R. Hannas, M.D., Kansas City.
Sponsored by the Tri-State Conference on Emergency Room Physicians.

1:00 PM *Impaired Physicians and Their Family,* H. James Lurie, M.D., Department of Psychiatry, University of Washington School of Medicine, Seattle, Wash.
Moderator: William A. Kelly, M.D., St. Louis.
Sponsored by Missouri Psychiatric Association and the MSMA Auxiliary.

2:00 PM *Important Topics in Infectious Diseases* (Continued).
*Viral Diseases of Special Interest,* Lloyd C. Olson, M.D., Associate Professor of Pediatrics, University of Missouri-Kansas City.
Moderator: Donald Youll, M.D., Kansas City.
*Diagnosis and Treatment of Childhood Pneumonias,* Michael Cooperstock, M.D., Assistant Professor of Child Health, University of Missouri-Columbia.
Moderator: Donald Thurston, M.D., Chairman, Missouri Division, American Academy of Pediatrics.
Sponsored by the Missouri State Allergy Association, Missouri Thoracic Society and the Missouri Chapter, American Academy of Pediatrics.

2:00 PM *The Practical, Clinical and Usefulness of Diagnostic Echocardiography,* Richard E. Kerber, M.D., Associate Professor of Medicine and Director of Cardiovascular Non-Invasive Diagnostic Laboratory, University of Iowa College of Medicine, Iowa City, Ia.
*Cardiovascular Nuclear Medicine,* Kenneth A. McKusick, M.D., Clinical Director of Nuclear Medicine, Massachusetts General Hospital, Boston, Mass.
Sponsored by Missouri Heart Association, Inc.

2:00 PM *Interpretation of Blood Gases and Ventilators in the Surgical Patient,* Scott McCord, M.D., University of Missouri-Columbia.
Sponsored by the Missouri State Surgical Society.

3:30 PM **Intermission to View Exhibits.**
3:30 PM Missouri State Surgical Society Business Meeting.
3:30 PM Missouri State Medical Foundation Board Meeting.
4:00 PM **House of Delegates, second session.**
4:30 PM Missouri State Allergy Association Business Meeting.
4:30 PM Missouri Thoracic Society Business Meeting.
6:00 PM **Reference Committee Meetings.**
6:30 PM Dinner Meetings: Missouri Society of Pathologists.
Missouri Psychiatric Association.
Missouri State Surgical Society.
7:00 PM Dinner Meeting, Missouri State Allergy Association.

### Saturday, April 15

7:30 AM MSMA Auxiliary Public Affairs Breakfast.
Speaker: The Honorable E. Thomas Coleman, Washington, D. C., Congressman, Missouri's 6th District.

8:00 AM Registration.

9:00 AM *Discuss the Issues with Your AMA Delegates.* (Missouri's AMA Delegates and Alternates will be available for an open forum-type discussion.)

9:00 AM *Herpes Simplex Virus Ocular Infection, Antiviral Topical Therapy,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, Pa.
Moderator: Larry Piebenga, M.D., Kansas City.
Sponsored by Missouri Ophthalmological Society.

9:00 AM Program Sponsored by the Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists.

9:00 AM *Cardiac Rehabilitation,* Frederic Kottke, M.D., Chairman, Physical Medicine and Rehabilitation, University of Minnesota, Minneapolis, Minn.
*Geriatric Fitness Exercise Programs,* Wayne Osness, Ph.D.
*The Management of the Geriatric and Middle-Aged Amputee,* Ken Hu, M.D., St. Louis.
Moderator: Franz U. Steinberg, M.D., St. Louis.
Sponsored by Physical Medicine and Rehabilitation.

9:00 AM *Respiratory Problems in the Surgical Patient,* John Collins, M.D., Chairman, Department of Surgery, Stanford University, Stanford, Calif.
Sponsored by the Missouri State Surgical Society.

9:00 AM *Brain Stem Audiometry*
*Current Status Cochlear Implants.*
*Ossicular Problems.*
*Experience with the Ossicular Prosthesis.*
Speaker: Derald E. Brackmann, M.D., Otologic Medical Group, Ear Research Institution, Los Angeles, Calif.
Sponsored by the Missouri Ear, Nose and Throat Association.

10:30 AM *Diagnosis of Malignant Melanoma,* Loren Golitz, M.D., Denver, Colo.
Moderator: Larry E. Millikan, M.D., Columbia.
Sponsored by the Missouri Dermatological Society.

10:30 AM **Intermission to View Exhibits.**

11:00 AM *Special Family Problems, Parents and Children,* Beverley T. Mead, M.D., Professor and Chairman, Department of Psychiatry, Creighton University, Omaha, Neb.
Moderator: William C. Allen, M.D., Columbia.
Sponsored by the Missouri Academy of Family Physicians.

11:00 AM Program sponsored by the Missouri OB-GYN Society and the American College of Obstetricians and Gynecologists.

11:00 AM *Continuing Medical Education and the Missouri Surgeon—Boyd Terry, M.D.,* University of Missouri-Columbia.
Sponsored by the Missouri State Surgical Society.

11:00 AM Speakers: *Percutaneous Cordotomy,* August A. Geise, M.D., St. Louis.
*Radiofrequency Trigeminal Rhizotomy,* George Mendelsohn, M.D., St. Louis.
*Hypophysectomy for Cancer Pain,* Charles A. Clough, M.D., Kansas City.
*The Future in Pain Management,* Clark Watts, M.D., Columbia.
Moderator: C. Keith Whittaker, M.D., Kansas City.
Sponsored by the Missouri Society of Neurosurgeons.

11:00 AM *Corneal Edema After Cataract Surgery and Intraocular Lens Placement.* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, Pa.
Moderator: Larry Pilbenga, M.D., Kansas City.
Sponsored by the Missouri Ophthalmological Society.

11:00 AM Panel Discussion on *Application of the Total Hip Replacement for Salvage of the Previously Operated Hip.*
Sponsored by the Missouri Orthopaedic Association.

12:30 PM **Fifty-Year Club Luncheon.**
Missouri Society of Neurosurgeons Luncheon.
Missouri OB-GYN Society and American College of Obstetricians and Gynecologists Luncheon.
Missouri Ophthalmological Society, Inc. Luncheon.
Physical Medicine and Rehabilitation Luncheon.

1:30 PM *Contrast Agents in Urography,* William H. McAlister, M.D., Professor of Radiology, Mallinckrodt Institute of Radiology, St. Louis.
*Radiation Therapy of Lung Cancer,* MacDonald B. Logie, M.D., Assistant Professor of Radiology, Mallinckrodt Institute of Radiology, St. Louis.
*Noninvasive Studies of the Heart Related to Isotopes,* Donald R. Germann, M.D., Professor of Radiology, St. Luke's Hospital, Kansas City.
Moderator: Menzie H. Brown, M.D., Kansas City.
Sponsored by the Missouri Radiological Society.

1:30 PM Clinical Pathological Conference.
Speaker: Loren Golitz, M.D., Chief of Dermatology, Denver General Hospital, Denver, Colo.
Moderator: Gary Dyer, M.D., St. Joseph.
Followed by Panel Discussion on *"How I Treat Common Dermatoses Kodachrome."*
Moderator: Larry E. Milliken, M.D., Columbia.
Sponsored by the Missouri Dermatological Society.

2:00 PM *Special Family Problems, Adult Members.*
Beverley T. Mead, M.D., Professor and Chairman, Department of Psychiatry, Creighton University, Omaha, Neb.
Moderator: William C. Allen, M.D., Columbia.
Sponsored by the Missouri Academy of Family Physicians.

2:00 PM *Current Concepts of Recurrent Corneal Erosion,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, PA.
Moderator: Larry Pilbenga, M.D., Kansas City.
Sponsored by the Missouri Ophthalmological Society, Inc.

3:30 PM **Intermission to View Exhibits.**

5:00 PM Missouri University Medical Alumni Cocktail Party.
St. Louis University Medical Alumni Cocktail Party.
Washington University Medical Alumni Cocktail Party.

6:30 PM Cocktails and Dinner: Missouri Dermatological Society. Radisson-Muehlebach Hotel.

6:30 PM **Social Hour for Those Attending Annual Banquet.**

7:15 PM **Annual Banquet in Honor of MSMA Past-Presidents.**

### Sunday, April 17

7:30 AM **House of Delegates** Meeting, Breakfast and Final Session.
Missouri Dermatological Meeting, UMKC Medical Center.

### Preliminary Program
### 53rd Annual Convention

## MSMA AUXILIARY

**Crown Center Hotel, Kansas City** **April 13-15, 1978**

**Thursday, April 13**

10:00 AM-4:00 PM Registration and Information. Roanoke Foyer.
1:30 PM Auxiliary Report to the MSMA House of Delegates.
4:00 PM Pre-Convention Board Meeting. Westport Room.
6:00 PM Dutch Treat Dinner and Play, "The Latest Mrs. McAdams." Waldo Astoria Dinner Theater. Round-trip bus from Crown Center. $13.

**Friday, April 14**

8:00 AM-11:45 AM Registration and Information. Roanoke Foyer.
7:30 AM MSMA Complimentary Coffee and Rolls. Century Foyer.
8:30 AM General Assembly and Business Meeting. Liberty Room.
Mrs. W. Jack Stelmach, President, presiding.
Guest: Mrs. Manuel A. Bergnes, Norristown, Pa., President-Elect of the American Medical Association Auxiliary.
12:00 NOON Awards Luncheon, Liberty Room.
1:00 PM-4:00 PM Seminar: *Impaired Physicians and Their Families.* Centennial "B" Room.
H. J. Lurie, M.D., Department of Psychiatry, University of Washington School of Medicine, Seattle, Wash.
Sponsored by the MSMA Auxiliary and the Missouri Psychiatric Association.
6:00 PM Reception Honoring Mrs. A. J. Campbell, MSMA Auxiliary President for 1978-1979. Centennial Foyer.
7:30 PM Dutch Treat Dinner.

**Saturday, April 15**

7:30 AM Public Affairs Breakfast.
Speaker: E. Thomas Coleman, Kansas City, U. S. Representative from the Sixth District.
8:45 AM General Assembly and Workshop. Century Room.
Guest: Mrs. Manuel Bergnes, President-Elect, AMA Auxiliary.
12:00 NOON Installation Luncheon. Century Room.
Guests of Honor: Howard J. McAlhany, M.D., President of the Missouri State Medical Association.
John N. Martin, M.D., President-Elect of the Missouri State Medical Association.
MSMA Advisory Council.
6:30 PM Social Hour for those Attending MSMA Annual Banquet.
7:15 PM MSMA Annual Banquet Honoring Past-Presidents.

MSMA MEMBERS!

## Watch for Your Special Hotel Reservation Card!

For your convenience in reserving rooms at Crown Center Hotel for the Annual Session, the MSMA will send to you a special, postage-paid reservation card with room rates and other pertinent information. Please send your reservation card to the hotel as soon as possible for best accommodations.

April 13-16, 1978 • MSMA 120th Annual Session • Kansas City

# in Brief

## A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

**BY A VOTE** of 178-46 the House of Delegates reaffirmed support for the AMA's Comprehensive Health Insurance Program, the proposal now in Congress as HR 1818 and S 218. In its recommendation to the House, the reference committee said it felt "compelled to observe that the issue of support of a program of comprehensive health insurance has been one of the most divisive issues for the profession in recent years. . . . It has been a time-consuming but necessary debate."

**THE BOARD OF TRUSTEES** is making a study of the "weakening of relationships in a number of states" between physicians and Blue Cross-Blue Shield. In a report to the House of Delegates, the Board noted that an increasing number of physicians maintain that the Blues are using payment mechanisms "to direct the manner in which physicians may treat patients." The House recently adopted a resolution opposing third-party differential payment for the services of participating and nonparticipating physicians. The resolution said such programs discriminate against physicians who do not have separate contractual relationships with the carrier and inhibit the free choice of physician by patients.

**METHODS TO IMPROVE** AMA dues billing and remittance procedures were adopted by the House. The set of criteria, proposed by the American Association of Medical Society Executives and approved by the Board of Trustees, will become effective with the 1979 dues billing.

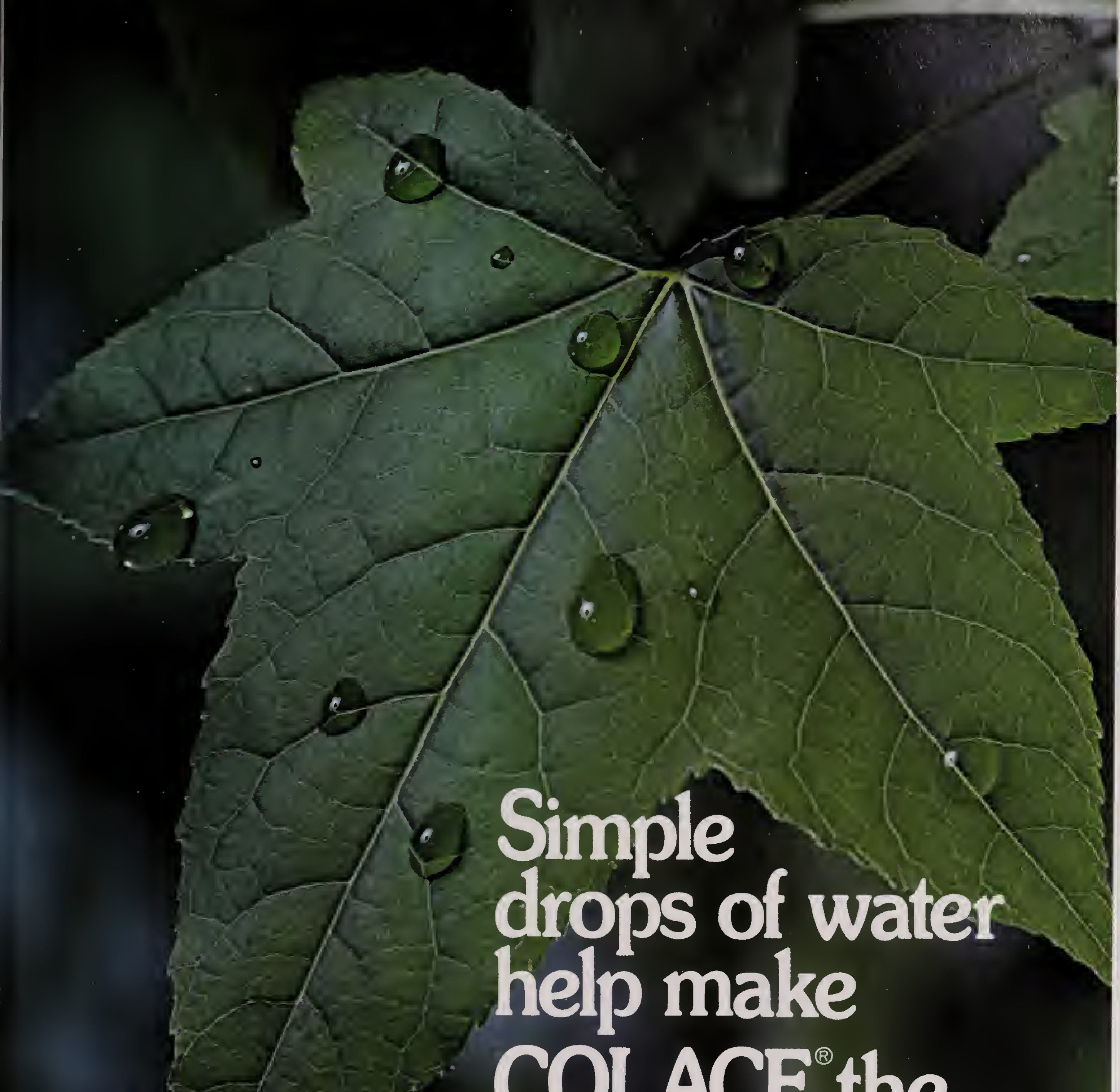
**AN UPDATE** of the fourth edition of *Current Procedural Terminology* (CPT-4) has been published. The 38 revisions include new codes for mastectomy procedures, cryosurgery and foot surgery and deletions of outmoded processes. The update is available at no additional cost and can be obtained by using a prepaid mailer in the back of the book. CPT-4 computer tapes have also been revised.

**NATIONAL MEDICAL SPECIALTY** societies will participate directly in AMA policymaking at the 1978 Annual Meeting. The House of Delegates, at its Interim Meeting in Chicago, adopted criteria to provide one delegate seat to any specialty society that was represented on an AMA Section Council in 1977 and (1) has at least 1,000 members or (2) represents a specialty for which there is an approved examining board listed in the Liaison Committee on Graduate Medical Education's Directory of Accredited Residencies. The Section Councils will be retained as official components of the AMA to provide a mechanism for the deliberation and study of scientific, educational and other interests of the specialty disciplines.

**A 15-POINT** plan featuring a goal of a 2% reduction in the rate of increase over each of the next two years in community hospital expenditures has been drafted by the national steering committee that is developing a Voluntary Cost Containment Program. The committee was formed late last year by the AMA, the American Hospital Association and the Federation of American Hospitals. It is composed of officials of the AMA, AHA, FAH, the Health Insurance Association of America, the Health Industry Manufacturers Association, the Blue Cross Association, the U. S. Chamber of Commerce and a consumer consultant. Describing the project as "a more concerned effort than any undertaken before," an AMA spokesman said a goal of the program will be to expand public awareness of the need for cost constraints and cost awareness on the part of consumers as well as providers.

**COST-AWARENESS** programs for medical students and physicians were called for by the House of Delegates at its Interim Meeting in Chicago. In a related action, the House adopted a policy urging physicians to volunteer fee information to their patients and called for development of an AMA program to encourage and assist physicians in making such information available in their offices.

**A 30-PAGE SUMMARY** report containing 48 resolutions has been issued by the National Commission on the Cost of Medical Care. The AMA House of Delegates deferred action on the recommendations until the 1978 Annual Meeting. The complete report, probably in three volumes, will be published early this year. The independent, 27-member Commission was organized in 1976 under the auspices of the AMA.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# COMPATIBILITY

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# Does it influence your choice of a peripheral/cerebral vasodilator*?

## Vasodilan–compatible with coexisting diseases (e.g., glaucoma, diabetes)

Vasodilan has not been reported to affect the course of coexisting disease; it has not been reported to affect blood sugar levels or to raise intraocular pressure.

## Vasodilan–compatible with concomitant therapy

Vasodilan has not been reported to affect the treatment of coexisting disease; it is compatible with such drugs as hypoglycemics and miotics.

## Vasodilan–compatible with your total regimen for vascular insufficiency

Vasodilan can be a valuable adjunct in planning a total therapeutic program for vascular insufficiency.

***Indications:** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

**Composition:** Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg. Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

**Dosage and Administration:** Oral: 10 to 20 mg., three or four times daily. Intramuscular: 5 to 10 mg. (1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

**Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

**Adverse Reactions:** On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg. intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

**Supplied:** Tablets, 10 mg., bottles of 100, 1000, 5000 and Unit Dose; Tablets, 20 mg., bottles of 100, 500, 1000, 5000 and Unit Dose; Injection, 10 mg. per 2 ml. ampul, box of six 2 ml. ampuls.

U.S. Pat. No. 3,056,836

**VASODILAN® 20-mg tablets**

(ISOXSUPRINE HCl)

**20 mg q.i.d. recommended dosage**

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Each capsule or tablespoon (15 ml) elixir contains theophylline (anhydrous) 150 mg and glyceryl guaiacolate (guaifenesin) 90 mg. Elixir: alcohol 15%

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- 100% free theophylline
- individualized theophylline dosage schedule

**Indications:** For the symptomatic treatment of bronchospastic conditions such as bronchial asthma, asthmatic bronchitis, chronic bronchitis, and pulmonary emphysema.

**Dosage:** Initial: Adults: 1-2 capsules or 1-2 tablespoonfuls elixir every 6-8 hours, children 8-12: 1 tablespoonful or one capsule every 6-8 hours and children under 8: 3 to 5 mg theophylline/kg body weight every 6-8 hours. Theophylline dosage may be cautiously increased to 2000 mg/24 hr in adults or 7 mg/kg in children; monitoring of serum theophylline levels at higher dosages is recommended.

**Precautions:** Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other xanthine derivatives concurrently. Use in case of pregnancy only when clearly needed.

**Adverse Reactions:** Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea and vomiting. The frequency of adverse reactions is related to the serum theophylline level and are not usually a problem at serum theophylline levels below 20μg/ml.

**How Supplied:** Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.

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MSMA

# NEWS ROUND - UP

February, 1978

# Council considers legislative matters

Legislative affairs dominated the discussion at the Feb. 4 meeting of the MSMA Council in Columbia.

Members of the Council heard an in-depth report from Dr. John I. Matthews, chairman of the MSMA Legislative Committee. Dr. Matthews urged medical schools, medical specialties and individual members to become more involved in the very important legislative process.

The Council directed the Legislative Committee to study the possibility of adding a "delegation amendment" to the Missouri Physicians' Practice Act. It was felt that this amendment would preclude the need for a separate physician's assistants statute.

The Council also requested the MSMA Auxiliary to assist the Association in gaining the passage of Sudden Infant Death Syndrome bills in the Legislature. (SB 765 and HB 1173)

In addition, the Auxiliary was authorized to begin working on an implementation of an emergency "911" telephone number in Missouri.

Dr. Edwin K. Burford, Speaker of the House, reminded the Council that the deadline for resolutions and delegates' names for Annual Session is Feb. 27. He also requested recommendations for members of the Reference Committees by March 1.

In other actions, the Council:

- Approved the appointment of Dr. Wilferd E. Wooldridge, Springfield, as Editor of Missouri Medicine. Dr. Wooldridge will replace Dr. Joseph V. Finnegan, St. Louis, who has been Editor since 1962.

- Appointed Drs. Granville Clark, Kansas City, Mary McCaffree, Jefferson City, and Louis Hetlage, Troy, to a liaison committee with the Missouri Pharmaceutical Association.

- Voted to send to the MSMA House of Delegates two recommendations from the Committee on Planning: 1) calls for weighted votes for AMA delegates based on the percentage of AMA membership in a component society and 2) requests a change in the MSMA Bylaws to require a county to have two or more physicians practicing or residing in the county before it is entitled to a delegate in the MSMA House.

- Heard a preliminary report on the upcoming vote on consolidation of St. Louis Medical Society and St. Louis County Medical Society. The ballots are to be mailed Feb. 11.

- Discussed the problem of establishing an effective "Legislative Contact" list and referred the issue to the Ad Hoc Action Committee on Political Affairs.

- Requested the Commission on Public Affairs to provide preliminary guidelines for implementing a public relations campaign.

- Referred the issue of differences in third party pay schedules to the Commission on Medical Economics, Third Party and Governmental Relations.

- Reviewed a cost containment program from the Missouri Hospital Association and recommended two revisions in the program.

## MOMEDICO officers and Board of Directors elected

The incorporators of MOMEDICO, the stock malpractice insurance company which will be owned solely by MSMA, met immediately following the Council meeting Feb. 4.

At this meeting a Board of Directors was elected. Members of the Board are Drs. Howard J. McAlhany, Irving H. Clark, John N. Martin, Andrew McCanse, Richard V. Bradley, Garth S. Russell, James M. Stokes, Howard E. Linville, Eugene T. Hansbrough, Mr. James Hamilton and Mr. Royal O. Cooper.

The Board of Directors then elected the following officers: Dr. McAlhany, chairman; Dr. Clark, president and chief executive officer; Dr. Martin, vice-president; Dr. Bradley, vice-president and assistant secretary; Dr. Stokes, assistant treasurer; and Mr. Cooper, secretary and treasurer.

Dr. McAlhany stated that the company has nearly completed all arrangements to begin business and it is expected that MOMEDICO will start writing policies sometime in March.

All members will receive in-depth information in a mailing around March 1.

## Plans are underway for 120th Annual Session

The 120th Annual Session of the Missouri State Medical Association is coming up soon and the final plans concerning it are now underway.

The 1978 convention will be held April 13-16, at the Crown Center Hotel in Kansas City. MSMA members will receive their preliminary programs in late February and are urged to make hotel reservations as early as possible.

With all the emphasis the press and the government have placed on health care costs, unnecessary surgery etc., in the past year, government intrusion into medicine should be a primary issue during this year's meetings of the House of Delegates. Medicaid and other legislation affecting Missouri's physicians are likely topics for debate again this Session.

Twenty-eight scientific sessions are planned for the continuing medical education program, the largest number the Association has ever had. Fourteen medical specialties and two voluntary health organizations will sponsor the programs. For the first time, the emergency room physicians will meet in conjunction with the Annual Session.

At the General Session of the convention at 9 a.m. on Friday, April 14, Dr. Robert B. Hunter, Chairman of the AMA Board of Trustees, will share the speaker's platform with Dr. Michael J. Goran, Director, Bureau of Quality Assurance, Health Care Financing Administration. They will discuss PSRO (Professional Standards Review Organization).

There will be entertainment at the Annual Banquet on Saturday evening and, in addition, a 12-piece orchestra will provide music for dinner and post-show dancing. Tickets for the Banquet will be available at the MSMA Registration Desk.

## *Rhine River voyage planned for July 4-14*

Members of the MSMA are invited to take the luxury Rhine River Adventure, an 11-day holiday through Germany and Belgium.

The first three days are spent in Brussels. the next three cruising the Rhine River and stopping along the way at quiet little towns and old cities. For the final three days, members will tour Munich. Throughout the trip, members may set their own pace and take advantage of optional side trips.

The Adventure, sponsored by MSMI, departs from Kansas City and St. Louis on July 4, 1978, and returns July 14. The trip, arranged by INTRAV, costs $1298.

Included in the price are direct chartered flights, a 70 pound luggage allowance, deluxe accommodations, full American breakfasts and dinners at a selection of the finest restaurants, gratuities and an INTRAV travel director and cruise director.

In addition, a program of medical seminars will be conducted in Belgium, Germany and aboard ship. The program has been approved for Category Two Continuing Medical Education credit.

A brochure outlining the tour has been sent to MSMA members, but if you would like additional information, please write: Rhine River Adventure, Missouri State Medical Association, P.O. Box 1028, Jefferson City, MO 65101.

## Specialty societies gain seats in AMA House

During the American Medical Association's Interim Session in December, 1977, the House of Delegates made a policy change which could affect Missouri's representation in the AMA.

The AMA House eliminated delegates from the 28 section councils and instead set specific criteria for specialty societies to achieve direct representation in the AMA.

Dr. Rae Froelich, an AMA delegate from Missouri, said Missouri could be better represented if physicians from this state would attempt to gain election from their own specialty societies.

Dr. Froelich urged the various specialty societies in Missouri to inquire from their national organizations about the correct process of nominating their delegates to the AMA House.

Two sets of criteria for seating delegates from specialty societies were adopted:

- Any national medical specialty society currently represented on an AMA Section Council, with 1,000 or more AMA members, or
- Any national medical specialty society currently represented on a Section Council, with fewer than 1,000 AMA members, but which represents a specialty with an approved examining board listed in the Directory of Accredited Residencies, published by the Liaison Committee on Graduate Medical Education.

Each specialty society which meets either of these criteria is entitled to one delegate and one alternate delegate and can seek representation by applying to the Board of Trustees before the first day of the 1978 interim meeting of the House.

The societies may also apply after the start of the next interim meeting, but then must receive approval for representation from both the Board of Trustees and the House.

Although the new policy eliminates 28 delegate spots, there are 50 specialty societies and all but two meet either set of criteria for direct representation. The two which do not meet the new criteria — the American Society of Clinical Pharmacology and Therapeutics and the Society of Medical Consultants to the Armed Forces — can petition the Board of Trustees for a delegate.

Under the new system, the section councils serve as forums for discussion and study. Each specialty society can select its own representative to the section council of its discipline. There will be a minimum of four members on each section council, including the delegates and alternates from the specialty society.

## Dr. Thoma appointed to State Board of Health

*George E. Thoma, M.D., Clayton, has recently been appointed by Governor Joseph Teasdale as a member of the State Board of Health.*

*Dr. Thoma, vice president of St. Louis Medical Center, will replace Mrs. Martha Hambine. His term will expire Oct. 13, 1981.*

*Teasdale also reappointed Warren S. Hinton, St. Joseph, to the Board. Hinton is executive director of Methodist Medical Center.*

# Comments sought on New Code of Medical Ethics

The American Medical Association is seeking comment from physicians regarding a proposed revision of the AMA's Principles of Medical Ethics.

The AMA Judicial Council proposed the changes to modernize and clarify the language of the Principles. The amendments are on the agenda of the AMA House of Delegates in June, 1978, in St. Louis.

Comments and suggestions should be addressed to:
Bruce Nortell, Secretary
AMA Judicial Council
American Medical Association
535 N. Dearborn St.
Chicago, IL 60610

Following are the present Principles of Medical Ethics and the proposed version of the Principles:

| Current Principles | Proposed Principles |
|---|---|
| **Preamble.** These principles are intended to aid physicians individually and collectively in maintaining a high level of ethical conduct. They are not laws but standards by which a physician may determine the propriety of his conduct in his relationship with patients, with colleagues, with members of allied professions, and with the public. | **Preamble.** These principles are intended to aid physicians in maintaining high standards of ethical professional conduct in their relations with patients, colleagues, members of allied professions, and the public. |
| **Section 1.** The principal objective of the medical profession is to render service to humanity with full respect for the dignity of man.<br>Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion. | **One.** The primary objective of the medical profession is to serve patients competently with full respect for their dignity. |
| **Section 2.** Physicians should strive continually to improve medical knowledge and skill, and should make available to their patients and colleagues the benefits of their professional attainments. | **Two.** Physicians should strive continually to improve medical knowledge and skill and to make available to patients and colleagues the benefits of their professional attainments. |
| **Section 3.** A physician should practice a method of healing founded on a scientific basis; and should not voluntarily associate professionally with anyone who violates this principle. | **Three.** A physician should not engage or participate in treatment which is not founded on a scientific basis. |
| **Section 4.** The medical profession should safeguard the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of the profession and accept its self-imposed disciplines. They should expose, without hesitation, illegal or unethical conduct of fellow members of the profession. | **Four.** The medical profession should protect the public and itself against physicians deficient in moral character or professional competence. Physicians should observe all laws, uphold the dignity and honor of their profession, and voluntarily accept its self-imposed disciplines. Physicians should expose, without hesitation, illegal or unethical conduct of members of the profession. |
| **Section 5.** A physician may choose whom he will serve. In an emergency, however, he should render service to the best of his ability. Having undertaken the care of a patient, he may not neglect him; and unless he has been discharged he may discontinue his services only after giving adequate notice. He should not solicit patients. | **Five.** Physicians may choose when they will serve except in emergencies. Competent services should be provided and continued until the physician is discharged or services are discontinued after giving adequate notice. A physician should not attempt to obtain patients by deception. |
| **Section 6.** A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care. | **Six.** Physicians should resist restraints which interfere with medical judgment and skill or cause deterioration of the quality of medical care. |
| **Section 7.** In the practice of medicine a physician should limit the source of his professional income to medical services actually rendered by him, or under his supervision, to his patients. His fee should be commensurate with the services rendered and the patient's ability to pay. He should neither pay nor receive a commission for referral of patients. Drugs, remedies or appliances may be dispensed or supplied by the physician provided it is in the best interest of the patient. | **Seven.** Physicians are entitled to be compensated fairly for personally providing or supervising the medical care of patients. A commission should not be paid nor accepted for the referral of patients. |

**Continued on next page**

**Continued on next page**

| Current<br>Continued | Proposed<br>Continued |
|---|---|
| **Section 8.** A physician should seek consultation upon request; in doubtful or difficult cases; or whenever it appears that the quality of medical service may be enhanced thereby. | **Eight.** A physician should seek consultation upon request or whenever it may benefit the patient. |
| **Section 9.** A physician may not reveal the confidences entrusted to him in the course of medical attendance, or the deficiencies he may observe in the character of patients, unless he is required to do so by law or unless it becomes necessary in order to protect the welfare of the individual or of the community. | **Nine.** A physician may not reveal confidences entrusted during medical attendance or deficiencies observed in the character of patients, unless required to do so by law or it becomes necessary in protecting the welfare of the patients or the community. |
| **Section 10.** The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society where these responsibilities deserve his interest and participation in activities which have the purpose of improving both the health and the well-being of the individual and the community. | **Ten.** In addition to providing care to patients, the physician has a social responsibility to participate in activities intended to improve the health of the community. |

## Physicians from Fifth and Second Districts meet

Physicians from the 12-county MSMA Fifth District met with Missouri Legislators from their area on Jan. 20 to discuss issues of common concern.

The meeting, hosted by Dr. Peter Ekern, Mexico, was held in Columbia. Dr. John I. Matthews, Jefferson City, Secretary of the MSMA and chairman of the Legislative Committee, spoke about proposed legislation which would affect the medical profession and health care in Missouri.

Another district meeting is scheduled for Feb. 21 in Hannibal. This meeting, which includes physicians from the MSMA Second District, will begin at 6:30 p.m. at the Holiday Inn.

The speaker for the program will be Dr. Howard J. McAlhany, President of the MSMA.

The Second District is composed of physicians from Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan Counties.

## *Residents invited to workshop in St. Louis*

Residents and other physicians planning to enter private practice are invited to attend an "Establishing Yourself in Medical Practice Workshop," May 11 and 12, 1978, at the Breckenridge Inn in St. Louis.

Enrollment in the program is limited to 27 physicians to give plenty of opportunity for discussion and questions. If you would like to attend, please register as soon as possible.

The registration fee is $95 for MSMA members and $125 for non-members.

Additional information was published in the January issue of the MSMA News Round-Up or you may write to MSMA, Box 1028, Jefferson City, MO 65101. Please include a check if you wish to enroll at this time.

## *AMA will hold its Annual Session in St. Louis*

**The 1978 Annual Session of the American Medical Association will be held in St. Louis June 17-22. Here is your chance to see organized medicine in action and to take advantage of the many scientific programs AMA will be offering!!**

## MMPAC membership decreases — MMPAC needs your support!

The membership total for the Missouri Medical Political Action Committee (MMPAC) in 1977 was 1,131, which includes 1,076 regular, 46 sustaining and 9 Auxiliary.

This is a decrease from the 1976 total of 1,197 (1,131 regular and 66 sustaining).

The present membership in MMPAC represents less than 20 per cent of the members of the MSMA. To be truly effective, MMPAC needs active participation by all physicians.

National and state elections are coming up in 1978 and many of the issues to be discussed will affect the future of medicine. MMPAC doesn't buy votes, but its funds do support candidates who will give physicians a chance to tell their point of view.

In the 1976 state election, MMPAC funds proved effective. Of those candidates supported by MMPAC, 98% were elected to the Missouri House of Representatives and 88% to the State Senate.

Membership in MMPAC and AMPAC (American Medical Political Action Committee) is open to all MSMA members. The MMPAC solicitation was included in your membership billing. If you have not paid your Association dues, please write a check for MMPAC membership. If you have paid MSMA dues, but did not join MMPAC, you may send a separate check for $25 to your component society. If you are a professional corporation, please write your MMPAC dues on a PERSONAL check.

For further information, write MMPAC, Box 2357, Jefferson City, MO 65101.

**(A copy of MMPAC report filed with the appropriate supervisory officer is [or will be] available for purchase from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402.)**

# Minutes of the House of Delegates
# Second Interim Session
# Missouri State Medical Association

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### Minutes of the

## *Second Interim Session*

# MISSOURI STATE MEDICAL ASSOCIATION

## House of Delegates

### Howard Johnson's, Springfield
### November 2-3, 1977

## FIRST SESSION

The First Session of the House was called to order at 1 PM on November 2, 1977 with Edwin K. Burford, Jr., Speaker, presiding. The following officers, councilors and delegates were present during the Interim Session.

### OFFICERS

| | |
|---|---|
| President | Howard J. McAlhany, Springfield |
| President-Elect | John N. Martin, St. Joseph |
| Vice-President | Stanley S. Peterson, Springfield |
| Vice-President | Irving H. Clark, Kansas City |
| Vice-President | Ernest E. Wadlow, St. Joseph |
| Secretary | John I. Matthews, Jefferson City |
| Treasurer | James M. Stokes, St. Louis |
| Speaker of the House | Edwin K. Burford, Jr., Cape Girardeau |
| Vice-Speaker of the House | Lily Ann Hanes, St. Louis |

### COUNCILORS

| | |
|---|---|
| 1st District | Richard C. Hedges, N. Kansas City |
| 2nd District | John Walterscheid, Hannibal |
| 3rd District | Richard V. Bradley, St. Louis |
| 4th District | Louis P. Hetlage, Troy |
| 5th District | H. Peter Ekern, Mexico |
| 6th District | R. John Torontow, Nevada |
| 7th District | Andrew McCanse, Kansas City |
| 8th District | Walter T. German, Springfield |
| 9th District | C. W. Cooper, Thayer |
| 10th District | E. T. Hansbrough, Poplar Bluff |

### DELEGATES

#### First District

| | |
|---|---|
| Buchanan | Gary A. Dyer, St. Joseph |
| Buchanan | Edmund W. Kline, St. Joseph |
| Buchanan | Ernest E. Wadlow, St. Joseph |
| Clay | Donald A. Fakhoury, Kansas City |
| Clay | Donald E. Kuenzi, Kansas City |
| Clay | William R. McPhee, Kansas City |
| Clay | Truman B. Schertz, N. Kansas City |
| Grand River | Thomas N. Cofer, Chillicothe |
| Grand River | John R. Dixon, Brookfield |
| Grand River | John Platz, Carrollton |
| Northwest Missouri | Elvin D. Imes, Maryville |
| Northwest Missouri | Frank Matteson, Grant City |

#### Second District

| | |
|---|---|
| Chariton-Macon-Monroe-Randolph | James E. Campbell, Macon |
| Chariton-Macon-Monroe-Randolph | G. R. Hudson, Moberly |
| Marion-Ralls-Shelby | Michael J. Bukstein, Hannibal |
| Marion-Ralls-Shelby | Carl R. Kruse, Palmyra |

#### Third District

| | |
|---|---|
| St. Louis City | Luis B. Anglo, St. Louis |
| St. Louis City | Ralph L. Biddy, St. Louis |
| St. Louis City | Thomas J. Cooper, St. Louis |
| St. Louis City | Richard H. Fallon, St. Louis |
| St. Louis City | Daniel M. Fraser, St. Louis |
| St. Louis City | R. O. Frederick, St. Louis |
| St. Louis City | August W. Geise, Jr., St. Louis |
| St. Louis City | Clement B. Grebel, St. Louis |
| St. Louis City | Charles R. Gulick, St. Louis |
| St. Louis City | George L. Hawkins, St. Louis |
| St. Louis City | Donald R. Judd, St. Louis |
| St. Louis City | Charles R. Lepley, St. Louis |
| St. Louis City | Francis X. Lieb, St. Louis |
| St. Louis City | J. Otto Lottes, St. Louis |
| St. Louis City | Robert R. MacDonald, St. Louis |
| St. Louis City | Napoleon Maminta, St. Louis |
| St. Louis City | A. Q. Manasala, St. Louis |
| St. Louis City | Roger L. Mell, St. Louis |
| St. Louis City | Melvin E. Meyer, St. Louis |
| St. Louis City | Lawrence W. O'Neal, St. Louis |
| St. Louis City | Richard T. Quick, St. Louis |
| St. Louis City | David M. Reisler, St. Louis |
| St. Louis City | Frank O. Richards, St. Louis |
| St. Louis City | Hubert A. Ritter, St. Louis |
| St. Louis City | John S. Sciortino, St. Louis |
| St. Louis City | Charles S. Sherwin, St. Louis |
| St. Louis City | A. J. Signorelli, St. Louis |
| St. Louis City | Kenneth R. Smith, St. Louis |
| St. Louis City | John A. Virant, St. Louis |
| St. Louis City | Carol F. Williams, St. Louis |

#### Fourth District

| | |
|---|---|
| Franklin-Gasconade-Warren | Samuel Bonney, Washington |
| Franklin-Gasconade-Warren | William Richardson, Union |
| Jefferson | Vicente D. Deles, Crystal City |
| St. Charles-Lincoln | James P. Felder, St. Charles |
| St. Charles-Lincoln | Paul H. Rother, St. Charles |
| St. Louis County | C. Read Boles, St. Louis |
| St. Louis County | Jill M. Clayton, St. Louis |
| St. Louis County | Edwin J. Cunningham, Jr., St. Louis |
| St. Louis County | John M. Laird, Jr., St. Louis |
| St. Louis County | Jay L. Meyer, St. Louis |
| St. Louis County | Jerry N. Middleton, St. Louis |
| St. Louis County | Wilbur A. Mullarky, St. Louis |
| St. Louis County | Frederick D. Peterson, St. Louis |

| | |
|---|---|
| St. Louis County | Antonio B. Santillano, St. Louis |
| St. Louis County | Melvin M. Schwartz, St. Louis |
| St. Louis County | W. Gary Sherman, St. Louis |
| St. Louis County | Frank J. Valach, St. Louis |
| St. Louis County | Miles C. Whitener, St. Louis |

### Fifth District

| | |
|---|---|
| Boone | William C. Allen, Columbia |
| Boone | A. Sherwood Baker, Columbia |
| Boone | Larry E. Millikan, Columbia |
| Boone | Benedict A. Moranville, Columbia |
| Boone | William B. See, Columbia |
| Boone | Hugh E. Stephenson, Jr., Columbia |
| Cole | Royal S. Garner, Jefferson City |
| Cole | Mary McCaffree, Jefferson City |
| Cole | Robert H. Tanner, Jefferson City |
| Cooper | George W. Winn, Boonville |
| Morgan | J. Loren Washburn, Versailles |

### Sixth District

| | |
|---|---|
| Lafayette-Ray | Jordon Kelling, Waverly |
| Pettis | A. J. Campbell, Sedalia |
| West Central | Alfred W. Eklund, Pleasant Hill |
| West Central | A. L. Hanson, Butler |
| West Central | William Haynie, Butler |
| West Central | Robert L. Magee, El Dorado Springs |
| West Central | R. W. Pearse, Jr., Nevada |

### Seventh District

| | |
|---|---|
| Jackson | Lafe W. Bauer, Kansas City |
| Jackson | Elwyn S. Brown, Kansas City |
| Jackson | Raymond J. Caffrey, Kansas City |
| Jackson | Richard M. Childs, Kansas City |
| Jackson | Irving H. Clark, Kansas City |
| Jackson | Charles P. Gauthier, Kansas City |
| Jackson | John A. Griffith, Jr., Kansas City |
| Jackson | Frederick H. Hartwig, Kansas City |
| Jackson | William D. Hoadley, Kansas City |
| Jackson | Donald E. McIntosh, Kansas City |
| Jackson | William J. Medlicott, Kansas City |
| Jackson | Joseph A. Pinkerton, Kansas City |
| Jackson | Robert Slickman, Kansas City |
| Jackson | O. Dale Smith, Kansas City |
| Jackson | W. Jack Stelmach, Kansas City |
| Jackson | S. Dwight Woods, Kansas City |
| Jackson | Ronald Youmans, Kansas City |
| Jackson | James P. Youngblood, Kansas City |

### Eighth District

| | |
|---|---|
| Dallas-Hickory-Polk-Dade | Evelyn Griffin, Buffalo |
| Dallas-Hickory-Polk-Dade | O. A. Griffin, Buffalo |
| Greene | Charles J. Ash, Springfield |
| Greene | Donald H. Beisner, Springfield |
| Greene | H. B. Ivy, Springfield |
| Greene | Richard H. Loeb, Springfield |
| Greene | Don E. Menchetti, Springfield |
| Greene | Stanley S. Peterson, Springfield |
| Greene | David L. Spalding, Springfield |
| Greene | Thomas P. Sweeney, Springfield |
| Greene | James F. Terry, Springfield |
| Jasper | John R. Esther, Joplin |
| Jasper | Robert L. Willcoxon, Joplin |
| Ozarks | Paul B. Anderson, Neosho |
| Ozarks | Charles Christianson, Mt. Vernon |
| Ozarks | Roy Gillespie, Branson |
| Ozarks | Kenneth Glover, Mt. Vernon |
| Ozarks | Mary J. Merideth, Cassville |
| Ozarks | Stanley D. Roper, Ozark |
| Ozarks | Fred L. Wommack, Crane |
| Webster | T. M. MacDonnell, Marshfield |

### Ninth District

| | |
|---|---|
| South Central | O. Martin Hasek, Mountain Grove |
| South Central | W. Thomas Morgan, Jr., West Plains |

### Tenth District

| | |
|---|---|
| Butler-Wayne-Ripley-Carter | George H. Ladyman, Poplar Bluff |
| Butler-Wayne-Ripley-Carter | Kirby L. Turner, Poplar Bluff |
| Cape Girardeau | Gordon W. Eller, Cape Girardeau |
| Cape Girardeau | Melvin Kasten, Cape Girardeau |
| Mineral Area | Norma Farmer, Farmington |
| SEMO | Fuad H. Kandalaft, Dexter |
| SEMO | Edwin J. Masters, Sikeston |
| SEMO | John P. Sargent, Sikeston |

## DELEGATES-AT-LARGE

Edwin K. Burford, Jr., Cape Girardeau, Speaker
Lily Ann Hanes, St. Louis, Vice-Speaker

### Past-Presidents

Max S. Franklin, St. Louis
Walter T. Gunn, St. Louis
Doyle C. McCraw, Bolivar
Guy N. Magness, University City

## STUDENT DELEGATES

Mr. Fred McQueary, University of Missouri-Columbia
Mr. Russ Tackett, University of Missouri-Columbia
Ms. Tamara Ostapowicz, St. Louis University
Mr. Paul J. Sheehan, St. Louis University

The Speaker invited Dr. Doyle C. McCraw to present the report of the Credentials Committee. Dr. McCraw stated that eight officers, ten councilors and 121 delegates had presented satisfactory credentials which constitute the roll call of the House of Delegates. His motion that the report of the Credentials Committee be adopted was seconded and approved.

The Speaker introduced Dr. McAlhany who addressed the House of Delegates.

The Speaker introduced Dr. Irving H. Clark who discussed the captive professional liability insurance proposal. After a preliminary explanation of the insurance program, Dr. Clark directed attention to the booklet on MOMEDICO, which was included in each delegate's handbook. He introduced Mr. Jim Hamilton, Mr. Tim Danis, Mr. Doug O'Leary and Mr. Moe Stokes of Rollins Burdick Hunter Co. who invited questions about the program from members present. There was an extensive question-and-answer period.

**(The Speaker referred the matter of the captive professional liability insurance proposal to the Reference Committee on Resolutions.)**

### Resolution #19—Early Testing for Hypothyroidism

### Resolution #25—Testing for Hypothyroidism in Newborns

The Speaker recognized Dr. C. Read Boles, St. Louis County, who requested permission to withdraw Resolutions #19 and #25 which relate to testing the newborn for hypothyroidism. Dr. Boles explained that HB 55, passed by the Missouri General Assembly in 1965, authorized the Director of the Missouri Division of Health to initiate such action for the detection of hypothyroidism and, at the request of the Director, a committee has been formed to provide the expertise to implement the requirements set forth in the resolutions after principal studies are made.

(The Speaker allowed the withdrawal of Resolutions #19 and #25. There were no objections from the floor of the House.)

The Speaker referred members of the House to the MSMA Action Plan proposed by Dr. Howard J. McAlhany, President, which was included in the Delegates' Handbook and reads as follows:

### MSMA "Action Plan"

Recently, the Planning Committee and the MSMA Council recommended that the following statement be added to our Bylaws:

*The MSMA may serve as the bargaining agent for its members and enter into negotiations on their behalf.*

I believe we must develop a "Missouri Action Plan," within the present structure of the MSMA, to deal with current *social, political* and *medical* issues. We must expend every effort in an attempt to unify and revitalize our society. Only through unity can we prevent further abrogation of our freedom in the private practice of medicine.

Three Ad Hoc "Action Committees" have been appointed, each headed by a member of the Council, hopefully, to implement the program and respond directly to our membership.

1. *Socioeconomic*—This committee would attempt to resolve differences between physicians and third parties, including government, relative to payment of benefits, fees and conditions of service. When a physician believes he has been aggrieved against by a third party, he does not respond to it. He refers it to this committee who will investigate the problem and respond. This means that one physician will not be overwhelmed by a third party but will be represented by the MSMA—5,000 strong.
2. *Political*—We must become involved in an ongoing political program if we expect to increase our effectiveness in Jefferson City. The Key Man concept is a good one, but it has not proved effective on a statewide level. We must upgrade this concept, through each component medical society, interview each candidate, present our views and maintain a *continuing dialogue* at the local level.
3. *Medical*—This committee would concern itself with disputes between physicians and hospitals, interference with physician-patient relationships, etc. Are physicians truly involved in cost containment programs? Are we participating adequately in health planning? Is PSRO being supervised properly? These are only a few of the problems.

The adoption of this program would require additional staff, secretarial, printing, travel and committee expenditures. I anticipate that funds in the amount of $45,000 to $50,000 annually would be needed to fully develop the program. I recommend a dues increase of $25.00 per year in order to finance a strong, viable, ongoing program.

If we fail to concern ourselves with these problems, then we will continue to be regulated without input from our profession.

Quo Vadis!

(Referred to Reference Committee on Constitution and Bylaws.)

The Speaker referred members of the House to the report of the Committee on Constitution and Bylaws and the proposed amendments to the Constitution and Bylaws which read as follows:

### REPORT OF THE COMMITTEE ON CONSTITUTION AND BYLAWS

The Committee examined the Constitutional changes *(below)* submitted by the Planning Committee and by the Council and approved the language in both.

The Committee reviewed the changes in the Bylaws *(below)* and approved the language in each. While the language of each amendment was approved by the Committee, the members had some comments which should be communicated in this report.

1. The Committee discussed briefly the rationale behind the Constitutional provision prescribing that the Council shall elect both the Secretary and Treasurer. The comment was "should not the Secretary be elected by the House of Delegates?" (Chapter IV, Section 1)
2. The Committee discussed the question of whether it is necessary to have three positions for Vice-President. The Committee felt that the House of Delegates should consider reducing the number to the one First Vice-President position. The provision for three vice-presidents was felt to be archaic.
3. The members examined briefly the language of Chapter XI, Section 6 (paragraph 2) of the Bylaws, questioning its function and purpose in light of the accommodating membership policies pursued in the St. Louis area. No specific recommendations were made however.
4. The Committee finally reviewed the language of Chapter III, Section 2, as proposed by the Planning Committee and amended by the Council. Discussion centered around interpretation of the word "practicing" in the Council amendment. The word should be interpreted to mean "officed" or, possibly, should be changed to read "officed." The Committee agreed to allow the language to be submitted as written along with this suggestion to the Interim Session of the House of Delegates.

### CONSTITUTIONAL CHANGES

#### ARTICLE II—PURPOSE

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, the organization of its membership for negotiation and collective bargaining purposes, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

#### ARTICLE XI—AMENDMENTS

The House of Delegates may amend any article of the Constitution by a two-thirds vote of the delegates present and voting at any Annual or Interim Session, provided that such amendment shall have been presented in open meeting at the Annual or Interim Session held one year previous to the meeting at which final action is to be taken and that the amendment shall have been published twice during the year in the Journal of the Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

### BYLAWS CHANGES

1. a. Amend by substitution the words "component society" for "component county society" as they appear in Chapter III, Sections 2, 6 and 8; Chapter VI, Section 7; Chapter XI, Sections 6, 8 and 10.

b. Amend by substitution the words "component society" for "county society" as they appear in Chapter V, Sections 1 and 5; Chapter VI, Sections 5 and 8, Chapter XI, Sections 1, 3, 4, 6, 7, 8, 9 and 10.

c. The editor shall have authority to alter the amendment by making the words plural where appropriate.

2. Amend Chapter IV, Section 1 by adding to the last sentence the words:

"and excepting the Secretary and Treasurer who are elected by the Council."

3. Amend Chapter IV, Section 2 by placing a period after the word "elect" in the second sentence and substituting for the language thereafter the following:

Delegates and Alternates for the American Medical Association shall be elected as follows:
The Nominating Committee shall propose one name for each delegate position for a full two-year term, one name for each alternate position for a full two-year term, and one name for each unexpired position. Where there is no contest, a majority vote without ballot shall elect.
When a nomination for AMA delegate for a full two-year term is contested, the AMA delegates shall be elected by ballot. Each MSMA delegate shall have two votes on one ballot and each vote must be cast for a different nominee. No ballot shall be counted if it contains fewer or more than two votes or if the ballot purports to cast more than one vote for any nominee. A nominee is elected if he received a majority of the votes cast and has the highest total of votes cast. If all vacancies for AMA delegates are not filled on the first ballot, then subsequent ballots will be taken with the nominee receiving the fewest number of votes cast in each subsequent ballot dropping out of consideration on the next ballot and each MSMA delegate casting one vote for each position available in each subsequent ballot until one nominee for each position is elected.
The election for AMA alternates and an election to fill an unexpired term will be conducted in the same manner.

4. Amend Chapter V, Section 2 by substituting for the language therein the following:

The President and the President-Elect shall be members of the Council and shall attend all meetings of the Council. The President-Elect shall assume the office of the President at the Annual Session following his election to the position of President-Elect. Should the office of President-Elect become vacant through death or otherwise, the Council may fill the vacancy by appointment until the next Annual Session.

5. Amend Chapter V, Section 3 by substituting for the language therein the following:

The Vice-Presidents shall assist the President in the discharge of his duties. Prior to the meeting of the Nominating Committee, the President-Elect shall recommend to the Nominating Committee the name of a member to serve as First Vice-President. In the event of the death, resignation, or removal of the President, the First-Vice President shall serve as President for the unexpired term.

6. Amend Chapter V, Section 4 by substituting for the language therein the following:

The Treasurer shall give bond in the sum of $50,000. He shall demand and receive all funds due the Association, together with bequests and donations. Money shall be paid out of the treasury only on the written order of the President and Secretary, the President and Treasurer or the Treasurer and Secretary. The Treasurer shall subject his accounts to such examination as the House of Delegates may order, and he shall annually render an account of his actions and of the state of the funds in his hands.

7. Amend Chapter V, Section 5 by deleting the words "card index."

8. Amend Chapter VI, Section 1 by substituting the following for the first sentence of that section:

The Council shall meet during the Annual and the Interim Sessions at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors.

9. Amend Chapter VI, Section 8 by substituting the following for the language therein:

The Council shall appoint at least six months prior to the Annual Session, a committee consisting of three of its members to be known as the Committee on Arrangements for the Annual Session. On recommendation of the Committee, the Council shall appoint a Chairman of a Local Committee on Arrangements, who shall be a member of the component society of the county in which the Annual Session is to be held, and who shall appoint and organize from the members of this component society the personnel of the Local Committee on Arrangements. The Local Committee on Arrangements shall serve as host for the Annual Session and shall also act in an advisory capacity for the staff of the Executive Secretary of the Association who is responsible for arrangements for the Annual Session.

10. Amend Chapter VIII, Section 4 by substituting the following two sentences for the first sentence of Section 4:

The Secretary of each component society shall cause to be collected and remitted to the Treasurer of this Association the per capita levies. Upon authorization of any component society, the Treasurer of this Association may collect the per capita levies directly from the members of that component society.

11. Amend Chapter XI, Section 3 by deleting paragraph 5 of Section 3 relating to waiving dues for members in the Armed Forces.

12. Amend Chapter XII, Section 1 by substituting for the language therein the following:

These Bylaws may be amended at any Annual or Interim Session by a two-thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

13. Amend Chapter VIII, Section 1 by substituting for subsection (a) therein the following new subsection (a):

(a) The annual dues of this Association shall be $115.00, which shall be applicable to each active member of the Association beginning in 1978 and shall be levied per capita on the active members of the component societies; the per capita levy for junior members shall be $10.00 per year; honor and associate members shall not be required to pay dues. Dues shall be payable on January 1 of the year for which they are levied.

14. Amend the Bylaws by including a new Chapter, Chapter XIII, to read as follows:

The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, the organization of its membership for negotiation and collective bargaining purposes, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

*Bylaws Change submitted by the Committee on Planning as amended by the Council.*

15. Amend Chapter III, Section 2 of the Bylaws to read as follows:

Section 2. Each component medical society shall be entitled to send each year, one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31, of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided, however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having a physician practicing or residing in the county of which the component society is composed. Alternate delegates may be elected from the entire membership of the component medical societies.

**(Referred to the Reference Committee on Constitution and Bylaws.)**

At this time, Dr. Lily Ann Hanes, Vice-Speaker, assumed the chair.

## Reference Committees

**The Vice-Speaker announced the appointment of the following reference committees and presented instructions to the committees.**

### CONSTITUTION AND BYLAWS

George L. Hawkins, Jr., St. Louis, Chairman
William Richardson, Union
William J. Medlicott, Kansas City
Edmund Kline, St. Joseph
Mary K. McCaffree, Jefferson City

### MISCELLANEOUS AFFAIRS

John M. Laird, Jr., St. Louis County, Chairman
Charles S. Sherwin, St. Louis
John R. Esther, Joplin
Frederick H. Hartwig, Kansas City
G. R. Hudson, Moberly

### RESOLUTIONS

Charles J. Ash, Springfield, Chairman

Donald E. McIntosh, Kansas City
Donald A. Fakhoury, Kansas City
Roger L. Mell, St. Louis
Ms. Tamara Ostapowicz, St. Louis (Student)

## Introduction of Business

The Speaker noted that since Resolutions # 1 through # 26 had been submitted in time for inclusion in the Delegates' Handbook and Resolution # 27 and # 28 had been mailed to every delegate and received by him in excess of 24 hours before the opening of this session, their introduction from the floor is not required. These resolutions are as follows:

### Resolution #1—Bylaw Revision to Amend Chapter III, Section 2 to Require That Qualification of Delegates and Alternate Delegates Be the Same

(Introduced by Lawrence W. O'Neal, M.D.)

WHEREAS, alternate delegates may and do assume the full duties and responsibility of delegates, therefore, be it

*Resolved*, that Chapter III, Section 2, where it states, ". . . 31 of the previous year," to the end of the section be amended as follows: "31 of the previous year, plus one additional delegate or alternate for each one hundred members or a major fraction thereof. Delegates and alternates must reside or practice in the county they represent. All Past-Presidents of the Association, the Speaker and Vice-Speaker shall serve as Delegates-at-Large."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #2—Bylaw Revision to Amend Chapter III, Section 5 of Bylaws to Encourage Grass Roots Representation to AMA

(Introduced by Lawrence W. O'Neal, M.D.)

WHEREAS, to promote the best representation for Missouri in the AMA House of Delegates, a mode of election closer to democratic, grass roots representation than present procedure is desirable; therefore, be it

*Resolved*, that Chapter III, Section 5, which reads, "The House of Delegates shall elect delegates and alternates to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body" be amended by substitution as follows:

"The Council of the MSMA shall have, by the time of the annual meeting of the House of Delegates, apportioned the state into so many Delegate Districts as there are delegates to the AMA, the number of delegates being in accordance with the Constitution and Bylaws of the AMA. The Delegate Districts shall not vary in their physician population who are members of the MSMA by more than 10%."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #3—Bylaw Revision to Amend Chapter III, Section 6 of Bylaws to Provide for Equitable Composition of Council Districts

(Introduced by Lawrence W. O'Neal, M.D.)

WHEREAS, there is an iniquitous distribution of representation in the Council of the MSMA, with one Councilor representing 63 physicians and another representing 1,705 physicians, and

WHEREAS, to have a Councilor representing only 3% of the physicians that another Councilor represents is clearly undemocratic, and

WHEREAS, the MSMA ought to aspire to the highest principles of democracy, therefore, be it

*Resolved*, that Chapter III, Section 6 of the Bylaws, which reads, "The House of Delegates shall divide the state into Councilor Districts specifying what counties each district shall include and, when the best interest of the Association and the profession will be promoted thereby, organize in each a district medical society of which all members of the component county societies shall be members." be amended by substitution as follows:

"The House of Delegates shall divide the state into ten Councilor Districts, specifying which member physicians each district shall include. The Councilor Districts shall not vary in their physician population who are members of the MSMA by more than 10%."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #4—Bylaw Revision to Amend Chapter IV, Section 1 of Bylaws to Change Instructions to Nominating Committee

(Introduced by Lawrence W. O'Neal, M.D.)

WHEREAS, it is not the right of the Nominating Committee to usurp the election function of the House, and

WHEREAS, it is clearly undemocratic to charge the Nominating Committee to limit its nominations to one for each office, therefore be it

*Resolved*, that Section I, Chapter IV which reads, "The President on the first day of the Annual Session shall select a Committee on Nominations consisting of ten delegates, no two of whom shall be from the same Councilor District. The Committee on Nominations shall report the result of its deliberations to the House of Delegates in the form of a ticket containing the name of one member for each of the offices listed in Article VII of the Constitution which are to be filled at that Annual Session excepting the President-Elect who shall be nominated from the floor of the House of Delegates." shall be amended by substitution as follows: "The President on the first day of the Annual Session shall select a Committee on Nominations, consisting of ten delegates, one from each Councilor District. The Committee on Nominations shall ascertain that each proposed candidate for the offices listed in Article VII of the Constitution shall be willing and able to serve if elected, and is a member in good standing of his Component Society, the MSMA, and the AMA. If there are no candidates for an office, the Nominating Committee will seek qualified candidates for that office."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #5—Bylaw Revision to Amend Chapter IV, Section 2 of Bylaws to Change Voting and Balloting Procedures in the House of Delegates

(Introduced by Lawrence W. O'Neal, M.D.)

WHEREAS, secret ballots serve the democratic process far better than the current Bylaw requirement which states: "All elections of officers shall be by acclamation unless ballot is called for," and

WHEREAS, the Bylaws of the MSMA are vague on the election of delegates to the AMA, therefore, be it

*Resolved*, that Chapter IV, Section 2, which begins "All elections of officers shall be by acclamation unless ballot is called for . . .", shall be amended by substitution: "All elections of officers shall be by secret ballot. Prior to the balloting, the floor shall be cleared of persons not certified as delegates or the alternates of absent delegates, and each councilor shall certify verbally to the assembly that only properly elected delegates and alternates are voting. A majority of the votes cast shall be necessary to elect."

The second paragraph is current wording "In case no nominee for general offices of the Association receives a majority of the votes on the first ballot, the nominee receiving the lowest number shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all votes cast, when he shall be declared elected.

The MSMA delegates shall form Delegate Districts as described in Chapter III, Section 5 (proposed amendment) and each delegate district shall elect by secret ballot, following the above procedure for officers of the Association, a delegate and an alternate delegate to the AMA. Only those MSMA delegates who are members of AMA may vote for AMA delegates."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #6—Bylaw Revision to Amend Chapter VII, Section 1 of Bylaws to Create a Standing Committee on Districting

(Introduced by Lawrence W. O'Neal, M.D.)

WHEREAS, the task of ascertaining the proper composition of Councilor Districts and Delegate Districts (proposed amendment Chapter III, Section 5 and Chapter III, Section 6) would be onerous and would unduly distract the Council from the performance of its other duties, therefore, be it

*Resolved*, that Chapter VII, Committees and Commissions, Section 1, be amended as follows, add to the list of standing committees a Committee on Districting, to be followed by the additional new final paragraph to Section 1: "The Committee on Districting shall consist of 10 members, one from each Councilor District, appointed by the President. The Committee shall meet in January of each year and shall report to the Council by March 1. The Committee shall apportion the physicians of the State who are members of the MSMA into 10 Councilor Districts and as many AMA Delegate Districts as MSMA is entitled to. The districts may not vary in their physician population who are members of the MSMA by more than 10%. The composition of the districts will be announced on the first day of the Spring Annual Session, and shall be the districts referred to in Chapter IV (Election of Officers) of the Bylaws."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #7—Bylaw Revision to Amend Chapter XI of Bylaws to Clarify the Definition of Component Society

(Introduced by Lawrence W. O'Neal, M.D.)

Whereas, a number of counties in Missouri have no physicians and a number of others only one, and
Whereas, in many areas, several counties have joined together to form Component Societies composed of several counties, and
Whereas, St. Louis is not a county by law, and
Whereas, it, therefore, appears that the phrase "County Society" is inappropriate, unrealistic and not relevant to current practices, therefore, be it
*Resolved,* that Chapter XI be rewritten, deleting the word "County" and substituting where appropriate "Component," and be it further
*Resolved,* that Chapter XI, Section 2 be deleted, Section 3, last paragraph be amended to read: "A physician living near a component society boundary line may hold his membership in that component society most convenient for him to attend, on permission of the component society in whose jurisdiction he resides." Section 4 be amended to read: "Any physician who may feel aggrieved by the action of the component society in suspending or expelling him shall have the right to appeal to the Council whose decision shall be final. A component society shall at all times be permitted to appeal or refer questions involving membership to the Council of the State Association for final determination."
Section 6 be amended to read: "When a member in good standing in a component society moves to another jurisdiction in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the jurisdiction to which he moves. Pending his acceptance or rejection by the component society to which he moves, such member shall be considered to be in good standing in the component society from which he was certified and in the State Association to the end of the period for which his dues have been paid.
A member of a component society who moved to and engages in the practice of medicine at a location in another area in which there is a component society shall forfeit his membership in this Association and the Secretary shall remove his name from the roster of members of the Missouri State Medical Association unless within one year after such change of residence he becomes a member of the component society of the area to which he has moved."
Section 7 be amended to read: "Each component society shall have general direction of the affairs of the profession in its area, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county. Systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it includes every eligible physician in the society."
Section 8 be amended to read: "At some meeting in advance of the Annual Session of this Association, each component county society shall elect one or more delegates and an equal number of alternates therefor to represent it in the House of Delegates of this Association, in accordance with Chapter 111, Section 2 of these Bylaws. The secretary of each component society shall send a list of such delegates and alternates to the Secretary of this Association at least sixty days before the Annual Session. Representation in the House of Delegates shall be contingent on compliance with the foregoing provisions."
Section 9 be amended to read: "The secretary of each component society shall keep a roster of its members, and, if practicable, a list. . . ."
Section 10 be amended to read: "Any component society, in a manner approved by the State Association, or the State Association with the consent of the component society affected, may undertake, organize and put into effect plans for the medical care of indigent persons or indigent groups and low income groups, by agreements with physicians, public officials or others and by the use of contributions, cooperative funds or other means; provided, however, that a free choice of the available and participating physicians in that territory shall be allowed to the patient and that all relationships, legal or otherwise, between the physician and the patient shall be and remain as though it were strictly an individual employment."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #8—MSMA Review of Obsolete Medical Procedures

(Introduced by Clay County Medical Society)

Whereas, the medical profession recognizes that the cost of medical care in the United States is steadily increasing, and
Whereas, the medical profession is frequently blamed for this cost increase by performing alleged unnecessary or medically obsolete surgical procedures, and
Whereas, the medical profession has abdicated the determination of obsolete medical-surgical and laboratory procedures to third parties, as exemplified by the recent published list of procedures Blue Shield has alleged to be obsolete, therefore, be it
*Resolved,* that the Interspecialty Commission of the Missouri State Medical Association be directed to review all procedures paid for by third party payers to make a determination as to which medical-surgical and laboratory procedures are obsolete due to advances in medicine, and be it further
*Resolved,* that, if it is determined that certain procedures have only limited merit, the Commission should recommend that the procedures be performed only after additional consultation, and be it finally
*Resolved,* that this review by the Interspecialty Commission be an ongoing program thereby indicating the MSMA's concern regarding the continual rise in the cost of quality medical care.

(Referred to Reference Committee on Miscellaneous Affairs.)

### Resolution #9—Expansion of CME Credit

(Introduced by Vicente D. Deles, M.D.,
Jefferson County Medical Society)

Whereas, mandatory Continuing Medical Education is being made a requirement for membership in many medical organizations, and
Whereas, many government and private sections assume that mandatory CME improves the performance of the physician and the quality of health care, and
Whereas, a market for CME has been created and every conceivable type of organization is rushing to meet that demand, making it an extremely profitable business and very expensive in values of time and money, and
Whereas, a monograph of the Conference on CME and Quality Health Care held in June, 1976 at Boston University Health Public Center showed a repeated expression by knowledgeable people of the difficulty, if not the impossibility, of relating CME to improvement in the quality of health services, and
Whereas, a physician being elected or appointed to various political and/or administrative positions is a more clear manifestation of the work and the influence to the entire complex health service, and
Whereas, there is a need for more input and participation from all physicians and, much more so, the chosen leaders, therefore, be it
*Resolved,* that a special category for CME credits should be available for those who participate in the Political and Administrative aspects of Medicine and be generously assigned to be incorporated in the determination of the Physician's Recognition Award.

(Referred to Reference Committee on Miscellaneous Affairs.)

### Resolution #10—Protective Headgear for Motorcyclists

(Introduced by Franklin-Gasconade-Warren County
Medical Society)

Whereas, statistics for Missouri have shown that the motorcycle death rate is nearly twice the motor vehicle death rate, and
Whereas, much more than half of all motorcycle fatalities involve head injuries, and
Whereas, the use of the motorcycle helmet is a proven major factor in the reduction of fatal head injuries, therefore, be it
*Resolved,* that protective headgear (helmet) prevents death and disability for motorcyclists and the MSMA urges all motorcyclists to wear helmets.

(Referred to Reference Committee on Miscellaneous Affairs.)

### Resolution #11—Missouri Federation of Physicians and Dentists

(Introduced by Edwin J. Cunningham, M.D.,
St. Louis County Medical Society)

Whereas, the Missouri Federation of Physicians and Dentists was organized to further the practice of quality medicine by protecting the rights of both physician and patient alike, and
Whereas, the Missouri Federation of Physicians and Dentists has encouraged its Missouri State Medical Association members to be active in the Missouri State Medical Association and its component societies, and
Whereas, the Missouri State Medical Association has similar and consistent goals which may be enhanced and protected by the activities of the Missouri Federation of Physicians and Dentists, therefore, be it
*Resolved,* that the Missouri State Medical Association endorses the Missouri Federation of Physicians and Dentists, its activities, goals and purposes and encourages its members to participate and cooperate with the Missouri Federation of Physicians and Dentists in carrying out its work in support of the practice of medicine in Missouri.

(Referred to Reference Committee on Miscellaneous Affairs.)

### Resolution #12—MSMA Public Relations Campaign

(Introduced by B. A. Moranville, M.D.,
Commission on Public Affairs)

Whereas, the need for physicians to know what the public thinks of medical care and of the medical profession is of great importance, and

Whereas, only by gaining insight into the public's overview of medicine and medical care can physicians learn their strong points and the weak ones, and

Whereas, once the viewpoint of the public is known, public relations programs can be pinpointed to change or bolster the profession in the minds of the public, therefore, be it

*Resolved*, that the House of Delegates of the Missouri State Medical Association instructs the MSMA Council to engage the services of an outside firm whose expertise lies in the areas of surveying and analyzing public opinion, and be it further

*Resolved*, that once those public opinions are made available to the Association, a viable public relations and public information program be geared toward creating positive views of medicine and the profession in the minds of the public.

Estimated fiscal note for initial study: $16,000.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

### Resolution #13—Public Relations

(Introduced by Louis P. Hetlage, M.D.)

Whereas, pressures from consumer groups, government spokesmen and the press are gradually eroding the public confidence in the medical profession, and

Whereas, the generalities expressed in these allegations against the profession are seldom based on fact, and

Whereas, the stance of the MSMA and AMA has, in the past, been usually defensive and seldom positive in expressing the concern of the profession for the rising cost of medical care, the distribution of physicians and availability of medical care, and

Whereas, these factors are complex, at times being influenced by factors beyond the control of the profession, and

Whereas, the Society should, as a responsibility to its members, disseminate information informing the public of our concern for the problem and defining those areas over which we do, and do not, have control, therefore, be it

*Resolved*, that the House of Delegates of the MSMA directs the Council and its appropriate commissions to embark on a program of dissemination of information to the public, clearly stating medicine's stand in various sociomedical areas by whatever means it deems appropriate.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

### Resolution #14—Physicians' Assistants

(Introduced by Louis P. Hetlage, M.D.)

Whereas, there are currently over 100 Class A Physicians Assistants working in Missouri without legal status, and

Whereas, there are two accredited schools graduating Class A Physicians Assistants yearly, and

Whereas, a third school has been in operation since September with temporary accreditation, and

Whereas, the AMA has endorsed the principle of Physicians Assistants, and

Whereas, there are currently 46 states which licensed Physicians Assistants, and

Whereas, the experience of these states has shown that the fears expressed by the MSMA House of Delegates concerning a dilution of quality of patient care and a tendency for independent practice by Physicians Assistants are foundless, and

Whereas, legislation is pending in Congress to permit payment of Medicare and Medicaid fees to Physicians Assistants rendering service when these services are rendered under the direct supervision of a licensed physician, therefore, be it

*Resolved*, that the House of Delegates of the MSMA reconsiders its negative stance toward licensure or certification of Physicians Assistants, and be it further

*Resolved*, that a continuing study be made, by a special Ad Hoc Committee, for the purpose of discovering ways of rendering legal status to Physicians Assistants which would be acceptable to those physicians utilizing Physicians Assistants and also the membership of the MSMA in general.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

### Resolution #15—Temporary Withdrawal of Medicaid Endorsement

(Introduced by Louis P. Hetlage, M.D.)

Whereas, representatives of the Division of Family Services of the state of Missouri have made public statements implying widespread fraud by the entire profession within the Medicaid Program, and

Whereas, efforts by the MSMA to encourage these investigators to divulge the information on specific members involved in fraudulent procedures has met with apathy and negative comment by the Division of Family Services, and

Whereas, such action further casts a shadow of doubt upon the entire profession, therefore, be it

*Resolved*, that the House of Delegates of the MSMA temporarily withdraws its support of the Medicaid Program in the state of Missouri, and be it further

*Resolved*, that the House of Delegates of the MSMA reaffirms its concern with the health and welfare of all persons in the state of Missouri, and be it further

*Resolved*, that the House of Delegates of the MSMA recommends to its members that patients under Medicaid be seen and treated without charge and that no claim forms be submitted to the Division of Family Services either for office care or hospital care until such time as the matter is resolved.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

### Resolution #16—Support for SIDS Legislation

(Introduced by Francis X. Lieb, M.D.)

Whereas, the incidence of Sudden Infant Death Syndrome (SIDS) is about three per 1,000 live births, making that approximately 180-200 infant deaths for this reason in Missouri every year, and

Whereas, this makes SIDS the leading cause of deaths of infants of age one week to one year of age and, therefore, of great concern to Missouri physicians, and

Whereas, the definition of SIDS stated by the United States Public Health Service is "the sudden and unexpected death of a previously healthy infant which remains unexplained after careful postmortem studies," and

Whereas, the ideal management program consists of the following four points: 1. Recognize the parental right to autopsy in suspect cases of SIDS whereby such autopsies are to be conducted by qualified pathologists; 2. Provide expedient reporting of autopsy findings as soon as possible after completion of gross examinaton; 3. Encourage the use of "SIDS" as a term of recognized use in making out of death certificates where such term is apparently descriptive; 4. Establish and utilize an integrated referral system of public health counseling explaining the disease to SIDS-struck parents, and

Whereas, the first and most important step in realizing the above goal is a legislative initiative that will make postmortem examinations obligatory when unexplained deaths occur between one week and one year of age, therefore, be it

*Resolved*, that we recognize the need to pass such a law relative to death investigation, and be it further

*Resolved*, that the Missouri State Medical Association goes on record as favoring the above SIDS management program.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #17—Confidentiality of Medical Records

(Introduced by Jackson County Medical Society)

The physician-patient relationship depends on the maintenance of trust and confidentiality. Failure of confidentiality is occurring as a result of "leakage" of medical information from "third parties," government, personnel offices, etc. The Task Force on Confidentiality of the American Psychiatric Association has reported injuries to careers of patients through improper disclosure of information. For example, confidential medical information has been provided to government agencies and to legislators. Because of the dangers to careers and the knowledge that personnel offices have access to personal medical information, some individuals are refusing to utilize their health insurance and, therefore, are effectively denied needed medical care. Therefore, be it

*Resolved*, that the Missouri State Medical Association encourages and supports the enactment of appropriate legislation by the Missouri General Assembly and/or the Congress of the United States to fully protect the confidentiality of medical records, so patients may be secure in their professional relationship with their physicians.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #18—Driver Tests for Elderly

(Introduced by Jackson County Medical Society)

Whereas, the laws of the state of Missouri permit almost automatic renewal of drivers' licenses, as long as the licensee is not guilty of a flagrant violation of the law and does not demonstrate an obvious physical or mental defect; and

Whereas, this automatic renewal of license can be continued into the years when the licensee, because of age, may become deficient in eyesight, hearing, muscular coordination, reflexes or mental acuity; and

Whereas, an individual with some or all of the above-mentioned disabilities may become a hazardous driver, endangering the life and limb of self and others; and, therefore, be it

*Resolved*, that the Missouri State Medical Association urges the General Assembly to enact such laws as will require every driver to submit to an appropriate physical examination and driving test at age 65 and at least once every three years thereafter; and be it further

*Resolved*, that the Executive Council and Legislative Committee of the Missouri State Medical Association be instructed to take appropriate actions to accomplish the drafting, introduction and passage of such legislation in the General Assembly.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #19—Early Testing for Hypothyroidism

(Introduced by Jackson County Medical Society)

Whereas, the General Assembly of the state of Missouri in 1965 enacted a law which required that all infants born in the state be tested for phenylketonuria (PKU) in order that the presence of the disease might be detected early and remedial action might be initiated, and

Whereas, the incidence of hypothyroidism in the general population is higher than that of PKU and, therefore, its early detection and treatment has the potential for even greater benefits than PKU testing; therefore, be it

*Resolved*, that the Missouri State Medical Association calls on the General Assembly to enact appropriate legislation requiring that all infants born in the state of Missouri be tested for hypo-thyroidism, and be it further

*Resolved*, that the Legislative Committee of the Association be instructed to promote passage of such legislation and solicit support from other individuals or organizations which would be sympathetic and helpful to the effort.

**(Referred to Reference Committe on Resolutions.)**

### Resolution #20—MSMA-Owned Captive Professional Liability Insurance Company

(Introduced by the MSMA Council)

Whereas, the established commercial insurance industry has overreacted to adverse liability claims experience, and

Whereas, the established insurance industry has not disclosed adequate records of statistics which would substantiate the prices charged for professional liability insurance, and

Whereas, premiums in most jurisdictions, including Missouri, have been raised beyond the amount necessary to cover legitimate claims and expenses, and

Whereas, the American Medical Association is providing reinsurance to insurance companies owned by State Medical Societies, and

Whereas, a State Medical Association-owned insurance company has the potential of providing programs in education and control of loss which would never be fully developed in the commercial industry, therefore, be it

*Resolved*, that the Missouri State Medical Association shall form a captive insurance company for the purpose of offering professional liability insurance to its membership.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #21—Collateral Source Rule Legislation

(Introduced by Greene County Medical Society)

Whereas, passage of the collateral source rule has been estimated to reduce malpractice premiums from 20% upwards, therefore, be it

*Resolved*, that the Missouri State Medical Association resubmits a bill in the coming Legislature for admission of the collateral source rule.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #22—Payment of a Collecting Fee for Laboratory Specimens

(Introduced by the Commission on Medical Economics,
Third Party Medicine and Governmental Relations—
Max A. Heeb, M.D., Chairman)

Whereas, Missouri Medicaid pays as "physician's services" only those laboratory services carried out in a physician's office or under a physician's personal supervision, and

Whereas, all physicians who must routinely send specimens to outside laboratories are not reimbursed for the service they perform in collecting those specimens, therefore, be it

*Resolved*, that the MSMA sponsors legislation that would provide payment as a "physician's service" for the service performed in collecting a specimen for use in performing laboratory tests in an outside laboratory.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

### Resolution #23—Appropriation of a Reasonable Sum For Physician's Services

(Introduced by the Commission on Medical Economics,
Third Party Medicine and Governmental Relations—
Max A. Heeb, M.D., Chairman)

Whereas, the physician fees for services rendered under the Missouri Medicaid program remain among the lowest in the nation, and

Whereas, the number of participating physicians continues to decline because of the present level of reimbursement, therefore, be it

*Resolved*, that, once again, the MSMA reminds the Governor and the General Assembly of their responsibility to appropriate a sum to provide reasonable fees for the physicians who provide quality medical care for the poor in Missouri through the Medicaid program.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

### Resolution #24—Bonding and Family Interaction for Newborns

(Introduced by Jackson County Medical Society)

Whereas, there is increasing evidence indicating definite beneficial effects from the attachment and bonding process between mothers and their newborn infants; and

Whereas, the major components of bonding are touching, eye contact and parallel facial positioning between mother and infant; and

Whereas, coincident with the recognition of the bonding concept, the family-oriented birth process has also received increased acceptance by professionals involved with perinatal care; and

Whereas, because of increased public sophistication, knowledge and awareness, parents and siblings are seeking deeper mutual involvement in all aspects of the birth and nurturing process; and

Whereas, neither disruption of routine services nor increases in cross infection have been noted in those hospitals where professional staffs have encouraged early family-newborn interaction; therefore, be it

*Resolved*, that the Missouri State Medical Association recognizes the potential benefits of the attachment and bonding process and of family interaction involving newborn infants, their parents and siblings; and be it further

*Resolved*, that the Missouri State Medical Association encourages medical staffs of hospitals within the state to review their practice patterns and hospital policies with the objective of making such modifications as may be necessary to permit bonding and family interaction in those instances where they are specifically desired and requested; and be it finally

*Resolved*, that the Missouri State Medical Association encourages and actively works with appropriate units of government to revise or modify any current laws, rules or regulations which might deter or prohibit the attachment and bonding process or family interaction involving newborn infants.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #25—Testing for Hypothyroidism in Newborns

(Introduced by Calvin Woodruff, M.D.,
Boone County Medical Society)

Whereas, the General Assembly of the state of Missouri in 1965 enacted a law which required that all infants born in the state be tested for phenylketonuria (PKU) in order that the presence of the disease might be detected early and remedial action might be initiated, and

Whereas, the incidence of hypothyroidism in the general population is higher than that of PKU and, therefore, its early detection and treatment has the potential for even greater benefits than PKU testing, therefore, be it

*Resolved*, that the Missouri State Medical Association calls on the General Assembly to enact appropriate legislation expanding the present program for screening of newborn infants for preventable causes of mental retardation to include hypothyroidism and other diseases as methods become available, and be it further

*Resolved*, that the Legislative Committee of the Association be instructed to promote passage of such legislation incorporating the principles recommended by the Committee on Genetics of the American Academy of Pediatrics and the model legislation proposed by the Council of State Governments' Committee on Suggested State Legislation and solicit support from other individuals or organizations which would be sympathetic and helpful to the effort.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #26—Reporting Results of Tests of Possible Venereal Disease by Laboratories to Departments of Health

(Introduced by Missouri Society of Pathologists—
Thomas J. Cooper, President)

Whereas, many departments of Health by regulation require laboratories to report the results of tests of "positive for or suspicious of" venereal disease, and

Whereas, the positive diagnosis of a venereal disease should be made by the attending physician from history and physical examination together with the results of laboratory tests, and

Whereas, departments of health should receive a report of diagnosis of a venereal disease from the attending physician, and

Whereas, the premature reporting of the results of a test "suspicious" of a venereal disease by a laboratory to a Department of Health may cause embarrassment to innocent individuals as many results of tests for a venereal disease may be false due to the nature of the present methods of testing, therefore, be it

*Resolved*, that the Missouri State Medical Association condemns the practice of reporting results of a test for a venereal disease by laboratories to the Missouri Division of Health before a definitive diagnosis is made, and be it further

*Resolved*, that this resolution be forwarded to the Missouri Division of Health.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #27—Missouri State Medical Association Dissolves Its Association with Missouri Medical Services, Inc.

(Introduced by George L. Hawkins, Jr., M.D.)

*Resolved*, that the Missouri State Medical Association dissolves its association with Missouri Medical Services, that is, St. Louis Blue Shield.

The MSMA entails membership which is in no way related to the service area or function of Missouri Medical Services. There are MSMA members who are residents of other Blue Shield areas.

The Missouri Medical Service includes members who are not members of the MSMA, that is, non-MSMA physicians and osteopathic physicians.

Finally, and most important, two federal agencies are vigorously investigating Blue Shield plans across the country. The Federal Trade Commission and the Attorney General's Office, under the Clayton and Sherman Anti-Trust Acts, are systematically investigating the records in relationships of Blue Shield plans including the Missouri Medical Service Plan. If the MSMA has the insight and wisdom to avoid the plight that the Ohio State Medical Society finds itself in at the present time, it will sever this relationship with Missouri Medical Services and avoid the time, expense, adverse publicity and lawyers' fees associated with such an investigation.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #28—Insurance Parity for Psychiatric Care

(Introduced by Richard T. Quick, M.D.,
St. Louis Medical Society for the St. Louis
Medical Society Mental Health Committee)

Whereas, presently psychiatric coverage is limited or nonexistent in many health insurance policies available in Missouri, and

Whereas, most patients are often unaware and/or do not understand this discrimination against psychiatric services in their health coverage, and

Whereas, there is no reasonable actuarial basis for this discrimination other than historical and emotional prejudice, and

Whereas, this privation of medical care is a matter of concern to all physicians, therefore, be it

*Resolved*, that the Missouri State Medical Association goes on record as supporting insurance coverage for psychiatric care on parity with general medical, surgical and obstetrical services; and be it further

*Resolved*, that our Delegates bring a similar resolution to the AMA House of Delegates at its next meeting.

**(Referred to Reference Committee on Resolutions.)**

There being no further business, the Vice-Speaker adjourned the First Session of the House of Delegates.

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# SECOND SESSION

## Thursday, November 3, 1977

The Second Session of the House of Delegates was called to order at 7:45 AM by Dr. Edwin K. Burford, Jr., Speaker, who presided.

Dr. McCraw, Chairman of the Credentials Committee, reported that eight officers, ten councilors and 141 delegates were present and constituted the roll call. His motion to adopt the report was seconded and approved.

The Speaker invited Dr. George L. Hawkins, Jr., Chairman of the Reference Committee on Constitution and Bylaws, to present his report.

### CONSTITUTION AND BYLAWS

The Committee on Constitution and Bylaws, which consists of Drs. Richardson, Medlicott, Kline and McCaffree, met on Friday afternoon, November 2, with a standing-room-only crowd. We wish to thank you who testified and listened to the testimony. This Reference Committee feels that unity is necessary for a viable state organization and, with this concept in mind, your Reference Committee makes the following recommendations:

The Reference Committee received the remarks of Howard J. McAlhany, which were included in your Missouri State Medical Association Action Plan. The Committee recommends the adoption of the Action Plan as proposed in the remarks of Howard J. McAlhany with the realization that the adoption of this plan automatically entails an increase of $25 per year in dues.

The Reference Committee wishes to commend the far-sighted effort of Dr. McAlhany in expanding the services of the Missouri State Medical Association to its membership.

Mr. Speaker, the Committee moves the adoption of the Action Plan proposal as presented by Dr. McAlhany.

*(The motion to adopt was seconded and approved.)*

The Reference Committee considered the report of the Committee on Constitution and Bylaws. The Committee noted that amendments to the MSMA Constitution must lay on the table until the 1978 Interim Session (for one year) at which time they will be removed from the table and be voted on by the House of Delegates. Their approval will require a two-thirds vote of the delegates present and attending.

The first proposed amendment to be considered is the following:

### ARTICLE XI—AMENDMENTS

The Reference Committee recommends amending *Article XI—Amendments* as proposed by substituting the following language for the language therein:

> The House of Delegates may amend any article of the Constitution by a two-thirds vote of the delegates present and voting at any annual or interim session, provided that such amendment shall have been presented in the previous open meeting of the House of Delegates and that the amendment shall have been published twice since the last session of the House of Delegates in the Journal of the Association or sent officially to reach component society at least two months prior to the meeting at which final action is to be taken.

Mr. Speaker, we move that the Reference Committee's amendment to Article XI of the MSMA Constitution be approved to lay on the table for one year as provided in the Constitution.

*(The motion was approved.)*

The Committee also considered the proposed amendment to Article II, Purpose of the Constitution.

### ARTICLE II—PURPOSE

> The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, the organization of its membership for negotiation and collective bargaining purposes and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

*(The Speaker noted that the amendment to Article II, Purpose of the MSMA Constitution will automatically lie on the table until the 1978 Interim Session (for one year) at which time it will be removed from the table and be voted on by the House of Delegates. Their approval will require a two-thirds vote of the delegates present and attending.)*

The Reference Committee considered Item 1 of the Bylaw changes of the report of the Committee on Constitution and Bylaws. The Committee noted that this proposal is intended to make the language of the Bylaws uniform in regard to the component medical societies of the Association.

### Item 1—Bylaws Changes

a. Amend by substitution the words "component society" for "component county society" as they appear in Chapter III, Sections 2, 6 and 8; Chapter VI, Section 7; and Chapter XI, Sections 6, 8 and 10.
b. Amend by substitution the words "component society" for "county society" as they appear in Chapter V, Sections 1 and 5; Chapter VI, Sections 5 and 8; Chapter XI, Sections 1, 3, 4, 6, 7, 8, 9 and 10.
c. The editor shall have authority to alter the amendment by making the words plural where appropriate.

Mr. Speaker, the Reference Committee recommends adoption of Item 1.

*(The motion to adopt was approved.)*

### Item 2—Bylaws Changes

The Reference Committee considered Item 2 of the Bylaws changes in the Report of the Committee on Constitution and Bylaws. The Reference Committee recommends the adoption of Item 2 which reads as follows:

### CHAPTER IV, SECTION 1

Amend Chapter IV-Section 1 by adding to the last sentence the words "and excepting the Secretary and Treasurer who are elected by the Council."

*(The motion to adopt Item 2 as amended was approved.)*

### Item 3—Bylaws Change

The Reference Committee considered Item 3 of the Bylaws changes of the report of the Committee on Constitution and Bylaws. The Committee recommends that Item 3 be adopted as follows:

### CHAPTER IV, SECTION 2

Amend *Chapter IV, Section 2* by placing a period after the word "elect" in the second sentence and substituting for the language thereafter the following:

Delegates and alternates for the American Medical Association shall be elected as follows:
The Nominating Committee shall propose one name for each delegate position for a full two-year term, one name for each alternate position for a full two-year term, and one name for each unexpired position. Where there is no contest, a majority vote without ballot shall elect.
When a nomination for AMA delegate term is contested, the AMA delegate shall be elected by ballot. Each MSMA delegate may have one vote for each delegate to be elected and each vote shall be cast for a different nominee. A nominee is elected if he received a majority of the votes cast and has the highest total of votes cast. If all vacancies for AMA delegate are not filled on the first ballot, then subsequent ballots will be taken with the nominee receiving the fewest number of votes cast in each subsequent ballot dropping out of consideration on the next ballot and each MSMA delegate casting one vote for each position available in each subsequent ballot until one nominee for each position elected.
The election for AMA alternate and an election to fill an unexpired term will be elected in the same manner.

As a point of explanation, the reference committee amended the paragraph beginning with the words "When a nomination for AMA Delegate. . . ."

*(There was a discussion. Dr. Charles S. Sherwin, St. Louis, moved that the substitute amendment be amended by adding the words, "except as otherwise provided in these Bylaws" after the words "After each MSMA Delegate." His motion was seconded.*

*Dr. Gordon W. Eller moved that the Committee's amendment to Chapter IV, Section 2 be tabled for consideration later in the session. His motion was seconded and passed.)*

### Item 4-14, Bylaws Changes

The Reference Committee recommends that Items 4 through 14 be adopted as printed in the report of the Committee on Constitution and Bylaws.

*(The motion to adopt was approved.)*

### Item 15—Bylaws Change

### Resolution #1—Bylaw Revision to Amend Chapter III, Section 2 of Bylaws to Require That the Qualifications of Delegates and Alternate Delegates Be the Same

The Reference Committee considered Item 15, which is to amend Chapter III—Section 2, of the Bylaws changes in the report of the Committee on Constitution and Bylaws together with Resolution #1, since they deal with the same subject. The Committee recommends adoption of the following substitute amendment to the Bylaws which is as originally recommended by the Committee on Planning:

### CHAPTER III, SECTION 2

*Resolved*, that Chapter III, Section 2 of the Bylaws of the Missouri State Medical Association be amended to read as follows:
Section 2. Each component medical society shall be entitled to send each year, one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31 of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided, however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having two or more member physicians practicing in the county, of which the component society is composed; however, such delegates must practice in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies. All past-presidents of the Association, the speaker and vice-speaker shall serve as delegates-at-large.

*(A delegate moved that the substitute amendment for Chapter III, Section 2 be amended by changing the words "at least one delegate from each of the counties having two or more member physicians practicing in the county" to "at least one delegate from each of the counties having one or more member physicians practicing in the county." His motion was seconded.*

*A delegate called for a standing vote. The amendment to the substitute amendment was approved by a standing vote of 91 to 44.*

*Dr. John P. Sargent, Sikeston, then moved that the words "such delegates must practice in the county they represent" be amended to read "such delegates must reside or practice in the county which they represent." The motion was seconded and approved.*

*Dr. Charles J. Ash, Springfield, moved to amend Section 2 by adding the words "from multi-county component societies" after the words "such delegates." The motion was seconded and approved.*

*The Speaker called for a vote on Chapter III, Section 2 as amended. Chapter III, Section 2 was adopted as amended and reads as follows:*

### CHAPTER III, SECTION 2

Section 2. Each component medical society shall be entitled to send each year one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31 of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided, however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having one or more member physicians practicing in the county of which the component society is composed; however, such delegates from multi-county component societies must reside or practice in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies. All past-presidents of the Association, the speaker and vice-speaker shall serve as delegates-at-large.

### CHAPTER VI, SECTION 6

The Committee noted that Chapter VI, Section 6 of the current Bylaws provides that "In sparsely settled sections, the Council shall have authority to organize the physicians of two or more counties into societies, to be suitably designed so as to distinguish them from district societies, and these societies, when organized and chartered, shall be entitled to all rights and privileges provided for component societies until such county shall be organized separately."

The Committee recommends that the Council act in accordance with this section of the Bylaws in an appropriate manner to insure that no member is disenfranchised from the House of Delegates and it further recommends that no component society contain less than five members. The Council should act before the next Annual Session.

*(Dr. Ernest E. Wadlow, St. Joseph, moved that the Committee's recommendation be amended by adding the words "no newly organized" so that the recommendation would state "and it further recommends that no newly organized component society contain less than five members." The motion was approved by a standing vote.)*

The House of Delegates then voted to adopt the Reference Committee's report as amended.

### Resolution #4—Bylaw Revision to Amend Chapter IV, Section I of the Bylaws to Change the Instructions to the Nominating Committee

The Reference Committee considered Resolution #4 and recommends that it not be adopted.

*(The motion not to adopt Resolution #4 was carried and Resolution #4 was defeated.)*

### Resolution #5—Bylaw Revision to Amend Chapter IV, Section 2 of the Bylaws to Change Voting and Balloting Procedures in the House of Delegates

The Reference Committee next dealt with Resolution #5 and considered this resolution in two parts. The Committee's first recommendation is the adoption of the following Substitute Resolution:

#### CHAPTER IV, SECTION 2

*Resolved,* that the first sentence of Chapter IV, Section 2 be amended to read "all contested elections of officers shall be by written ballot."

*(The motion to adopt the Substitute Resolution #5 carried.)*

#### CHAPTER III, SECTION 5

In regard to the second portion, the Reference Committee recommends that the following sentence be added to Chapter III, Section 5:

Only those MSMA delegates who are members of the AMA may vote for AMA delegates.

*(The Speaker called for a standing vote. The Reference Committee's recommendation was defeated.)*

#### CHAPTER IV, SECTION 2

The Speaker then asked the delegates to consider Item 3 of the report of the Committee on Constitution and Bylaws which had been tabled earlier in the Second Session of the House of Delegates for consideration at this time.

Item 3 proposed the amendment of Chapter IV, Section 2 of the Bylaws by placing a period after the word "elect" in the second sentence and substituting for the language there after the following:

Delegates and alternates for the American Medical Association shall be elected as follows:

*(After a discussion, Dr. Ritter moved that Chapter IV, Section 2 be amended by stating the following:*

A nominee is elected if he receives votes on a majority of the ballots cast and has the highest total of votes cast.

*Dr. Ritter's motion was seconded.*

*Dr. Sargent, Sikeston, then moved that Dr. Ritter's amendment be amended by adding the words "to that position" after the words "has the highest total of votes cast."*

*The Speaker called for a vote on Dr. Sargent's amendment to the amendment proposed by Dr. Ritter. It was adopted. The Speaker then called for a vote on Dr. Ritter's amendment as amended. It also was approved. The House then adopted the main amendment to Chapter IV, Section 2 as amended, which reads as follows:*

Sec. 2. All contested elections of officers shall be by written ballot. A majority of the votes cast shall be necessary to elect.

Delegates and Alternates for the American Medical Association shall be elected as follows:

The Nominating Committee shall propose one name for each delegate position for a full two year term, one name for each alternate position for a full two year term, and one name for each unexpired position. Where there is not contest, a majority vote without ballot shall elect.

When a nomination for AMA delegate term is contested, the AMA delegates shall be elected by ballot. Each MSMA delegate may have one vote for each delegate to be elected and each vote shall be cast for a different nominee. A nominee is elected if he receives votes on the majority of the ballots cast and has the highest number of votes cast for that position. If all vacancies for AMA delegate are not filled on the first ballot, then subsequent ballots will be taken with the nominee receiving the fewest number of votes cast in each subsequent ballot dropping out of consideration on the next ballot and each MSMA delegate casting one vote for each position available in each subsequent ballot until one nominee for each position is elected.

The election for AMA alternates and an election to fill an unexpired term will be conducted in the same manner.

In case no nominee for general offices of the Association (see Article VII, Constitution) receives a majority of the votes on the first ballot, the nominee receiving the lowest number of votes shall be dropped and a new ballot taken. This procedure shall be continued until one of the nominees receives a majority of all the votes cast, when he shall be declared elected.

### Resolution #7—Bylaw Revision to Amend Chapter XI of the Bylaws to Clarify the Definition of Component Society

The Reference Committee considered Resolution #7 and recommends the adoption of Resolution #7 with the following changes:

On page 2, line 11, the word *"county"* be changed to read *"area"* and on line 13, page 2, the word *"society"* be changed to read *"area."*

The Reference Committee recommends the adoption of Resolution #7 as amended.

*(The motion was approved and Resolution #7 was adopted as amended.)*

### Resolution #2—Bylaws Revision to Amend Chapter III, Section 5 of Bylaws to Encourage Grass Roots Representation to the AMA

### Resolution #3—Bylaw Revision to Amend Chapter III, Section 6 of the Bylaws to Provide for Equitable Composition of Councilor Districts

### Resolution #6—Bylaw Revision to Amend Chapter VII, Section 1 of the Bylaws to Create a Standing Committee on Districting

The Reference Committee considered Resolutions #2, #3 and #6 and makes the following recommendation:

It is the feeling of this Committee that the continued reorganization of the Association to accomplish more proportional representation is one of the utmost importance and feels, at this time, that the only matter which can be handled is the matter of the delegates. There are other problems that will need further consideration among which are Council Districts and the mode of election of AMA delegates. We do not feel that this body can handle this problem at the present time and recommend that Resolutions #2, #3 and #6 be referred to the Committee on Planning for its report at the next Annual Session.

*(The motion was seconded and approved.)*

At this time, the Speaker granted a request from Dr. Francis X. Lieb of St. Louis for a ten-minute recess of the House of Delegates.

After the ten-minute recess, the Speaker called the House of Delegates to order and invited Dr. John M. Laird, Jr., Chairman, to present the report of the Reference Committee on Miscellaneous Affairs.

## MISCELLANEOUS AFFAIRS

The meeting of the Reference Committee on Miscellaneous Affairs was held at 2:20 PM in the Convention Center of the Howard Johnson Motor Lodge in Springfield on Nov. 2, 1977. All members were present.

### Resolution #8—MSMA Review of Obsolete Medical Procedures

The Reference Committee considered Resolution #8.

After considerable discussion for and against Resolution #8, the Committee considered the following amended Resolution:

Whereas, the medical profession recognizes that the cost of medical care in the United States is steadily increasing, and

Whereas, the medical profession is frequently blamed for this cost increase by performing alleged unnecessary or medically obsolete surgical procedures, and

Whereas, some third party payors have determined the value of medical-surgical and laboratory procedures as exemplified by the recent published list of procedures Blue Shield has alleged to be obsolete, therefore, be it

*Resolved*, that the Interspecialty Commission of the Missouri State Medical Association be directed to review all procedures to make a determination as to which medical-surgical and laboratory procedures are obsolete due to advances in medicine, and be it further

*Resolved*, that this review by the Interspecialty Commission be an on-going program thereby indicating the MSMA's concern regarding the continual rise in the cost of medical care.

Mr. Speaker, the Reference Committee recommends the approval of Resolution #8 as amended.

*(Dr. Charles Lepley, St. Louis, moved that the first Resolve in Resolution #8 be amended by changing the word "are" to "may be" so that it would read "and laboratory procedures which may be obsolete." His motion was seconded and approved.*

*Dr. Medlicott, Kansas City, moved that the first Resolve in Resolution #8 be amended by deleting the word "all" from the phrase "be directed to review all procedures." His motion was seconded and approved.*

*Dr. Grebel, St. Louis, moved to further amend the first Resolve by deleting the hyphen and inserting a comma between the words "medical" and "surgical." There were no objections to this typographical change.*

*The House of Delegates then adopted Resolution #8 as amended and corrected.)*

### Resolution #9—Expansion of CME Credit

The recommendation of the Reference Committee, following discussion, is that no special category for CME credit was determined available or possible. Therefore, the Committee recommends that Resolution #9 not be approved.

*(The Committee's recommendation was accepted and Resolution #9 was defeated.)*

### Resolution #10—Protective Headgear for Motorcyclists

The Reference Committee considered Resolution #10 and recommends that the *Resolved* portion of this resolution be amended to read as follows:

*Resolved*, that properly constructed headgear (helmets) prevent death and disability for motorcyclists and the MSMA urges all motorcyclists to wear such helmets.

Mr. Speaker, the Committee recommends that Resolution #10 be approved as amended.

*(The motion to accept Resolution #10 as amended carried.)*

### Resolution #11—Missouri Federation of Physicians and Dentists

The Reference Committee considered Resolution #11 and recommends that the *Resolved* portion of the resolution be changed to read as follows:

*Resolved*, that the Missouri State Medical Association endorses the activities, goals and purposes of the Missouri Federation of Physicians and Dentists, and encourages its members to participate and cooperate with the Missouri Federation of Physicians and Dentists in carrying out its work in support of the practice of medicine in Missouri.

*(The motion to approve Resolution #11 as amended was adopted.)*

### Resolution #12—MSMA Public Relations Campaign

The Reference Committee considered Resolution #12. This resolution was discussed extensively and the need for more public education was recognized. However, public opinion polls and expenditure of $16,000 may not provide meaningful results. Four of the five members of the Reference Committee recommended that Resolution #12 not be approved and one member of the Committee recommended its approval. Therefore, we recommend that it not be approved by majority consensus only.

*(After a discussion, the motion to adopt Resolution #12 was approved.)*

### Resolution #13—Public Relations

The Reference Committee considered Resolution #13 and recommends approval of this resolution.

*(The motion to adopt Resolution #13 was approved.)*

### Resolution #14—Physicians Assistants

The Reference Committee considered Resolution #14. The Committee recommends that this Resolution be amended by adding the words "register or certify" to the fifth Whereas to read as follow:

Whereas, there are currently 46 states which license, register or certify physicians assistants, and

The Committee also recommends that the *Resolves* be amended to read as follows:

*Resolved*, that the House of Delegates of the MSMA reconsiders its negative stance toward physicians assistants and be it further

*Resolved*, that a continuing study be made for the purpose of defining areas of training and consequent privileges of physicians assistants.

Mr. Speaker, the Committee recommends approval of Resolution #14 as amended.

*(The Speaker stated that the first Resolve in Resolution #14 was out of order since the House of Delegates cannot reconsider a resolution which was acted upon at a previous session of the House. Hence, the first Resolve was deleted from Resolution #14.*

*The Speaker called for a vote on Resolution #14 as otherwise amended by the Reference Committee. Resolution #14 was adopted as amended.)*

### Resolution #15—Temporary Withdrawal of Medicaid Endorsement

The Reference Committee considered Resolution #15. Discussion verified the woefully inadequate Medicaid program. However, withdrawal from Medicaid was not felt to be the solution to the problem. Therefore, the Committee recommends that Resolution #15 not be approved.

*(The motion not to approve Resolution #15 carried and Resolution #15 was defeated.)*

### Resolution #22—Payment of a Collecting Fee for Laboratory Specimens

The Reference Committee considered Resolution #22 and recommends the following amendment:

In the second Whereas, insert the words "no longer" in lieu of the word "not" and change the *Resolve* to read as follows:

> Whereas, all physicians who must routinely send specimens to outside laboratories are no longer reimbursed for the service they perform in collecting those specimens, therefore, be it
>
> *Resolved*, that the MSMA sponsors legislation that would once again provide payment as a physician's service for the service performed in collecting a specimen for use in performing laboratory tests in an outside laboratory.

The Committee recommends approval of Resolution #22 as amended.

*(A delegate moved to further amend the second* Whereas *in Resolution #22 as follows:*

> Whereas, all physicians who must routinely send specimens to outside laboratories are not reimbursed for the service they perform in collecting those specimens and interpreting the results and instituting appropriate therapeutic action, therefore, be it

*This delegate included in his motion the amendment of the Resolve in Resolution #22 to also state "for the service performed in collecting a specimen, interpretation of the results, with institution of appropriate therapeutic action." His motion was seconded.*

*After a discussion, the delegate asked for permission to withdraw his amendment. There were no objections and the Speaker permitted the withdrawal.*

*The motion to adopt Resolution #22 as amended by the Reference Committee was approved.)*

### Resolution #23—Appropriation of a Reasonable Sum for Physician's Services

The Reference Committee recommends that the *Resolved* portion of Resolution #23 be amended to read as follows:

> *Resolved*, that, once again, the MSMA reminds the Governor and the General Assembly of their responsibility to provide an adequately funded Medicaid Program in Missouri so that continued medical services will be available to the deserving Medicaid patients.

The Reference Committee recommends approval of Resolution #23 as amended.

*(The motion to adopt Resolution #23 as amended was approved.)*

The Speaker invited Dr. Lily Ann Hanes, Vice-Speaker, to assume the chair. The Vice-Speaker asked Dr. Charles J. Ash, Chairman, to present the report of the Reference Committee on Resolutions.

## RESOLUTIONS

### Resolution #16—Support for SIDS Legislation

The Reference Committee on Resolutions recommends that the following Substitute Resolution #16 be adopted:

> Whereas, the incidence of sudden infant death syndrome (SIDS) is about three per 1,000 live births, making that approximately 180-200 infant deaths for this reason in Missouri every year, and
>
> Whereas, this makes SIDS the leading cause of death of infants of age one week to one year of age and, therefore, of great concern to Missouri physicians, and
>
> Whereas, the definition of SIDS stated by the United States Public Health Service is "the sudden and unexpected death of a previously healthy infant which remains unexplained after careful postmortem study," and
>
> Whereas, accurate diagnosis and support of the family is desirable in this event, therefore, be it
>
> *Resolved*, that the Missouri State Medical Association goes on record as favoring SIDS management with the following four-point program:
>
> 1. Legislation making postmortem examinations available at state expense when unexplained deaths occur between one week and one year.
> 2. Provide the family and physician a report of autopsy findings as soon as possible after completion of the gross examination.
> 3. Encourage the use of SIDS as a term of recognized use in completing death certificates when it is appropriate.
> 4. Establish and utilize an integrated referral system of public health counciling explaining the disease to SIDS-struck parents.

Mr. Speaker, the Reference Committee recommends adoption of Substitute Resolution #16.

*(A delegate requested an editorial change in the wording of Item 1 under the Resolve by inserting the words "of age" after the words "one week." The Speaker ruled the change as acceptable with the approval of the Reference Committee.*

*The motion to adopt Substitute Resolution #16 as editorially corrected was approved.)*

### Resolution #17—Confidentiality of Medical Records

The Reference Committee recommends that Resolution #17 be adopted.

*(The motion to adopt carried.)*

### Resolution #18—Driver Tests for the Elderly

The Reference Committee considered Resolution #18. Testimony was developed that any elderly driver can be reported to licensing authorities by a variety of mechanisms. (1) during the eye examination required every three years, (2) by any law enforcement officer observing impaired driving and (3) by any neighbor, relative or friend. This automatically subjects the individual to a driving examination. In addition, it was felt that physical examinations for driver's ability in those who are over 65 are impractical and may involve class legislation.

The Reference Committee recommends that Resolution 18 not be adopted.

*(The motion not to adopt carried and Resolution #18 was defeated.)*

### Resolution #20—MSMA-Owned Captive Professional Liability Insurance Company

The Reference Committee recommends that Resolution #20 be adopted.

*(The motion to adopt Resolution #20 was approved.)*

### Resolution #21—Collateral Source Rule Legislation

The Reference Committee recommends that Resolution #21 be adopted.

*(After a brief discussion, the motion to adopt Resolution #21 was approved.)*

### Resolution #24—Bonding and Family Interaction for Newborns

The Reference Committee considered Resolution #24. There was a fairly lengthy discussion on bonding. The Committee, during testimony, felt that this is a very broad subject and that particular application would require individual methods. The Committee, therefore, feels that legislation and involvement of government is not appropriate at this time and, therefore, recommends deletion of the final *Resolve* which reads as follows:

> *Resolved*, that the Missouri State Medical Association encourages and actively works with appropriate units of government to revise or modify any current laws, rules or regulations which might deter or prohibit the attachment and bonding process of family interaction involving newborn infants.

The Reference Committee recommends that Resolution #24 be adopted as amended.

*(The motion was approved and Resolution #24 was adopted as amended.)*

### Resolution #26—Reporting the Results of Tests of Possible Venereal Disease by Laboratories to the Department of Health

The Reference Committee heard lengthy testimony for and against Resolution #26. The problem of biologically false positives was considered in depth. It was the feeling of the Committee, however, that the importance of this public health program as existing in all other states through automatic reporting is of far greater importance to community health.

The Reference Committee recommends that Resolution #26 not be adopted.

*(After a discussion, Resolution #26 was adopted by a standing vote of 84 to 40.)*

### Resolution #27—Missouri State Medical Association Dissolves Its Association with Missouri Medical Service, Inc.

Resolution #27, as submitted, resembled a resolution previously referred to the Council at the Annual Session. The general intent of Resolution #27 as worded required substantial changes at the request of its sponsor. Therefore, since the general intent of this resolution already has been accomplished, the Reference Committee recommends that Resolution #27 not be adopted.

*(After discussion, the motion was defeated and Resolution #27 was adopted.)*

### Resolution #28—Insurance Parity for Psychiatric Care

The Reference Committee recommends that Resolution #28 be adopted.

*(The motion to adopt Resolution #28 was approved.)*

Dr. Burford, Speaker, resumed the chair at this time. He called for new business. There was no new business.

The Speaker requested an invitation for the meeting place of the next Interim Session of the Association. Dr. Melvin Kasten invited the MSMA to hold the 1979 Interim Session in Cape Girardeau. The invitation was accepted.

Dr. Fallon, St. Louis, suggested that the next Interim Session be scheduled on a week-end. A show of hands indicated approval of the suggestion.

The Speaker pointed out that the MSMA Constitution provides that the MSMA Council determines the dates of the Interim Session.

There being no further business, the Speaker adjourned the Second Interim Session of the House of Delegates.

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"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

> ***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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**KAON® (potassium gluconate) TABLETS**

**Description:** Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
**Indications:** Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
**Contraindications:** Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
**Warning:** There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
**Precautions:** In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

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tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

**Adverse Reactions:** Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

**Overdosage:** Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

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**Description:** Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

**Indications:** See Kaon Tablets.

**Precautions:** See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

**Adverse Reactions:** See Kaon Tablets.

**Overdosage:** See Kaon Tablets.

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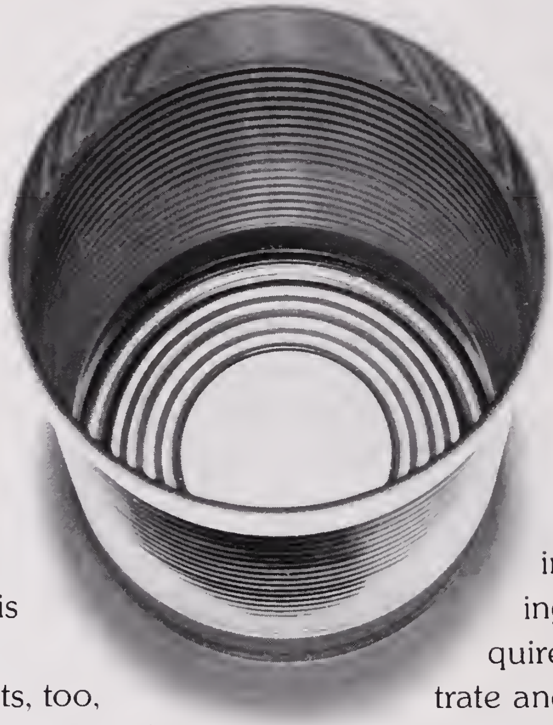

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# The Council Reports

Meeting of Dec. 17, 1977
Hilton Inn, Columbia

Andrew McCanse, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. McCanse; Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes and Max S. Franklin, St. Louis; Richard C. Hedges, N. Kansas City; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Walter German, Springfield; Claude W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Mary K. McCaffree, Jefferson City; I. H. Clark, Kansas City; Richard Fallon, St. Louis; Marvin Singleton, Joplin; Jack Wiles, West Plains; Rae W. Froelich, Lebanon; Robert A. Slickman, Kansas City; Melvin Kasten, Cape Girardeau; William C. Allen and Charles Lobeck, Columbia; David Challoner, St. Louis; William D. Bradshaw, Columbia; Robert E. Bregant, Jefferson City; H. B. Ivy, Springfield; Dr. and Mrs. A. J. Campbell, Sedalia; Mrs. W. Jack Stalmach, Kansas City; Messrs. Roy Pfautch, Jim Hamilton, and Tim Danis, St. Louis; Ron Garrett, St. Louis; Royal O. Cooper, C. C. Swarens, Ronald Ellison, John Kuebler, Becky Hankins, Staff.

### APPROVAL OF PREVIOUS MINUTES

Chairman McCanse opened the meeting by calling for approval of the minutes of the Nov. 2, 1977, Council Meeting. On motion, duly seconded, the minutes were approved as distributed.

### FAMILY PRACTICE RESIDENCY PROGRAM

Dr. William Bradshaw, Columbia, spoke to the Council in regard to family practice residency programs. He indicated that in general, his remarks would closely follow those made before the Council in 1975 which appear in the July, 1975 issue of Missouri Medicine. At that time, the Council went on record as favoring the establishment of family practice residency training programs. These residency programs would be established in community hospitals over the state in an effort to increase the number of physicians practicing in the State of Missouri. A bill, HB 1044, has been prefiled in the General Assembly which calls for the establishment of these programs. Dr. Bradshaw asked for Council support of this legislation. Following brief discussion, on motion, duly seconded, the Council agreed to give continued wholehearted support to this program.

### STATE HEALTH PLANNING

Dr. Robert Bregant, Chairman of the Missouri Statewide Health Coordinating Council, gave the Council a brief progress report regarding state health planning.

Dr. Bregant brought the Council up to date on policy statements which were recently adopted by the Statewide Health Coordinating Council. The purpose of these policies is to provide overall direction to the planning effort relative to broad, important issues and, as such, they will provide the Statewide Health Coordinating Council with the tools necessary to make decisions relative to statewide health issues.

This purpose and scope differentiates policies from "areas of concern" or "problem areas" to be developed later in the planning process. Dr. Bregant reported that his Council has developed a close-working relationship with professional associations, various governmental agencies and HSAs and could potentially become very powerful.

Dr. Bregant pointed out that initially he had some misgivings in regard to the operation of SHCC, but he now feels more optimistic.

The Chairman thanked Dr. Bregant for his report and the Council commended him for the outstanding job he is doing.

### EXECUTIVE SECRETARY'S REPORT

Mr. Cooper called the Council's attention to the latest revision of the MSMA Benefits Brochure which was in the folders. He indicated that Missouri has 7,800 M.D.s of whom approximately 5,000 are MSMA members. The recruitment program, as approved at the November Council Meeting, will be initiated in January.

Mr. Cooper distributed to the Council an update on the activities of the professional liability review board along with a copy of an article from the *St. Louis Globe-Democrat* which questions the constitutionality of these boards.

Dr. Sisk recently was appointed to the AMA Ad Hoc Committee on Health Planning and would certainly appreciate any input the Council might have in this area.

### PRESIDENT'S REMARKS

Dr. McAlhany reported that he had received a request from the Southeast Missouri District Dental Society asking for MSMA approval of a resolution stating that reduction of dental disease could be accomplished by reduction in sugar consumption. Dr. McAlhany pointed out that this resolution had not been adopted by the Missouri Dental Association and felt that this should be done prior to MSMA considering the resolution.

A communication has been received from the Missouri Podiatry Association seeking MSMA approval of a resolution concerning hospital staff privileges for podiatrists. This was presented to the Missouri Orthopaedic Association for its consideration. Its recommendation was that this not be approved. It has been the recommendation of the AMA that each individual hospital should make its own decision on staff privileges for podiatrists using established guidelines. On motion, duly seconded, it was agreed that the Council not accept the resolution as presented by the Missouri Podiatry Association.

Dr. McAlhany reported that he had again written a letter to Governor Teasdale objecting to the lack of funding for the Medicaid Program and again urging the Governor to follow the recommendation that Medicaid be funded to the same level as the Medicare program.

Dr. McAlhany received a letter from the Area II Health Systems Agency seeking the Association's comments on the proposed Area II Health Systems Plan. The Council suggested that the five Councilors in the Area II HSA meet with the Agency to discuss this proposed plan. A meeting has tentatively been set for January 7, 1978, at the Hilton Inn in Columbia.

### PUBLIC RELATIONS

At the November, 1977 MSMA Interim Session, the House of Delegates adopted two resolutions instructing the

MSMA Council to conduct a public opinion survey and to establish a viable public relations and public information program.

Mr. Roy Pfautch of Civic Service, Inc. spoke briefly to the Council regarding his firm's activities in the area of public opinion surveys. Mr. Pfautch pointed out that it is obvious to most physicians today that the practice of medicine as they deem it to be right and proper and the control of that practice is under a continuous onslaught from various areas. Members of organized medicine should have something to say about their image as it is presented to the public. Mr. Pfautch indicated that his firm has done several public opinion surveys for other state medical associations. He indicated that more decisions are made at the grass roots levels than nationally, so we do need to know the attitudes of the local public. A public opinion survey could provide us with some of these attitudes. When these are learned, his organization does give a very basic list of practical ways to put it to work.

After a brief discussion, the Council deferred action on this public relations issue until the Executive Session.

During the Executive Session, on motion, duly seconded, it was agreed that Civic Service Inc. be retained to provide the Association with a Missouri public opinion survey and a suggested communications program.

### MOMEDICO

Dr. I. H. Clark indicated that he was pleased with the progress as made with MOMEDICO and stated that several things need to be accomplished at this meeting by the Council regarding incorporation, etc. of MOMEDICO. He called on Jim Hamilton and Tim Danis of Rollins Burdick Hunter Co. to explain these to the Council.

Mr. Hamilton explained some of the work that has been accomplished to date in setting up MOMEDICO and indicated that there is still much to be done. He indicated that they had been negotiating with several banks regarding original funding for MOMEDICO. He indicated that they are presently negotiating with a St. Louis bank to obtain this funding. Under the terms presented by a letter from Boatmen's National Bank, the Council approved the general conditions of their agreement contingent upon clarification of two of the items under the loan agreement.

Mr. Hamilton presented the Council with a resolution which would give Council approval for authorization of various activities necessary to capitalize and form Missouri Medical Insurance Company, MOMEDICO. On motion, duly seconded, this resolution was approved contingent upon review and approval of MSMA Legal Counsel. The following resolution was approved by MSMA Legal Counsel:

Whereas, The House of Delegates of the Missouri State Medical Association adopted a Resolution, No. 20, on November 3, 1977, authorizing the formation of a professional liability insurance company for physicians, and

Whereas, Preliminary work has commenced to implement this resolution, upon motion duly made, seconded and unanimously adopted, it is

*Resolved:*

(1) That the work being performed by Rollins Burdick Hunter Co. of St. Louis; and the attorneys, Moser, Marsalek, Carpenter, Cleary, Jaeckel, Keaney and Brown; and the accountants, Price Waterhouse & Co.; and the actuaries, Tillinghast, Nelson & Warren, which has been completed to date and which is proposed to be completed in the near future, has been reviewed and approved;

(2) That the aforesaid persons are authorized to take the necessary steps to arrange for the issuance of subordinated notes of MSMA in an appropriate form and in an adequate dollar amount to enable MSMA to raise the funds to purchase the stock of the aforesaid insurance company; and

(3) After the sale of such notes and the raising of other additional capital, as required, the stock of said company shall be purchased by MSMA, except for those shares of stock that are required by law to be issued to the individual incorporators; and all rights appurtenant thereto shall be exercised by the parties hereinafter named; and

(4) In the event it is necessary to borrow money in addition to the capital raised by the sale of the aforesaid subordinated notes, such borrowings shall be made from time to time and in such amounts and in such manner as may be approved by the persons hereinafter designated; and

(5) All activities requiring the further approval by or signature of any officer or representative of MSMA shall be obtained from Howard J. McAlhany, M.D., President, Missouri State Medical Association; I. H. Clark, M.D., President, Missouri State Medical Insurance, Inc.; and Royal O. Cooper, Executive Secretary, Missouri State Medical Association, and such persons are fully authorized to act in behalf of the Council with respect to these matters and to do all things necessary to implement Resolution No. 20, enacted by the House of Delegates of the Missouri State Medical Association on November 3, 1977.

Dr. McAlhany moved that the 15 members of the MSMA Council plus Dr. I. H. Clark and the Executive Secretary serve as the incorporators of MOMEDICO and that the present MSMI Board serve as a temporary Board of Directors to expedite matters until a permanent Board of Directors can be named. The motion carried.

The following resolution was approved to be submitted to the Secretary of State:

*Resolved*, That the president and secretary of this corporation are hereby authorized to execute in behalf of this corporation, under the corporate seal thereof, a written instrument in accordance with an Act relating to the sale or other disposition of securities, known as the "Missouri Uniform Securities Act," irrevocably appointing the Commissioner of Securities or his successor in office, to do any and all the things in behalf of this corporation specified in said Act to be done by said Commissioner of Securities, and further irrevocably consenting that service as therein referred to shall be valid and binding and be deemed personal service upon this corporation so long as it shall have liabilities outstanding in the State of Missouri.

Mr. Hamilton thanked the Council members for their time and indicated that hopefully they will be able to write coverage under MOMEDICO by February 1 and no later than March 1, 1978.

### AMA DELEGATES' REPORT

Dr. Rae Froelich thanked the Missouri delegation for their hard work at the recent AMA Interim Session held in Chicago. He indicated that he felt the delegation was more informed on various items than at some times in the past.

Dr. Froelich discussed Resolution #50, as submitted by the Missouri delegation, regarding psychiatric fees being included in insurance policies. Our original resolution and a Georgia delegation amendment were referred back to the Board of Trustees for study and report back at the next session of AMA.

It was suggested that MSMA staff analyze MSMA resolutions with potential referral to the AMA and obtain information as to whether prior AMA action has been taken regarding the subject.

Dr. Froelich reported that between the conclusion of the last AMA meeting and the opening of the next meeting there are a group of specialty societies that may submit names of delegates to the AMA for inclusion in the House. Dr. Froelich spelled out the criteria necessary for this specialty representation. He suggested that perhaps the Councilors might wish to contact their societies and take action to try to get Missouri physicians to represent their specialties in the AMA House. He also suggested that staff might contact the various specialty societies in Missouri advising them of this change and offering to aid them in any way they can in getting Missouri delegates elected.

Dr. Froelich gave a brief slide demonstration regarding the financial status of the AMA, income, expenditures, etc. He felt that this might also be of interest to the MSMA House of Delegates. However, it was pointed out that, perhaps, printed material might be a better way of disseminating this information.

Chairman McCanse thanked Dr. Froelich for his presentation.

### MSMA AUXILIARY

Mrs. Stelmach reported that the Fall Conference held in October was a big success and complimented the Jasper County Auxiliary and Medical Society for their assistance.

She reported that the Auxiliary is sponsoring a scientific session at the MSMA Annual Session, along with the Missouri Psychiatric Association, on the subject of the "Impaired Physician."

The immunization brochure, which the Auxiliary asked the hospitals to include in their "new mother packets," has been well received. There has been a very good response from the hospitals. Instructors are still being trained in CPR. Immunization and timetable record books will be mailed after the first of the year.

Mrs. Stelmach reported that the Auxiliary has officially changed its name to "MSMA Auxiliary."

On motion, duly seconded, the report of the MSMA Auxiliary was approved.

### REPORT OF BUDGET AND FINANCE COMMITTEE

The Budget and Finance Committee met on Friday afternoon, December 16, prior to the Council Meeting on Saturday. The Committee reviewed the material presented which showed Exhibit A—Actual Income through October 31, 1977; Expected Total Income for 1977; Income Budget for 1977 and Estimated Receipts for 1977; Exhibit B—Actual Expenditures through October 31, 1977; Estimated Expenditures for 1977; Budget for 1977 and Proposed Budget for 1978; Exhibit C—Actual Meeting and Committee Expenses through October 31, 1977; Estimated Expenses for all of 1977; Budget for 1977 and Proposed Budget for 1978. A breakdown of anticipated income and expenses for the years 1977 and 1978 was also included.

Dr. Stokes, Chairman of the Budget and Finance Committee, reviewed the exhibits and breakdown with the Council and recommended the following proposed budget for 1978:

| | |
|---|---|
| Salaries | $207,800.00 |
| Furniture & Fixtures | 2,200.00 |
| General Expense | 9,500.00 |
| Office Supplies | 7,500.00 |
| MSMF Assessment | 44,330.00 |
| Journal Expense | 55,000.00 |
| Postage | 8,000.00 |
| Equipment Rentals & Repairs | 4,600.00 |
| Telephone & Telegraph | 10,000.00 |
| Pension Expense | 21,000.00 |
| Legal & Professional | 10,000.00 |
| Payroll Taxes | 12,000.00 |
| Commission-Committee Meetings | 80,000.00 |
| Annual Session | 34,000.00 |
| Discretionary Council Fund | 5,000.00 |
| Taxes—I.R.S. | 600.00 |
| Travel Expense | 10,000.00 |
| Building Expense | 7,500.00 |
| Improvements to Building | 8,000.00 |
| MMPAC Educational Projects | 3,500.00 |
| Interim Session | 6,000.00 |
| Countersuit Program | 20,000.00 |
| AMCAP (Computer Program) | 12,000.00 |
| Reinvested Interest—Reserve Fund | 13,900.00 |
| Public Relations Program | 26,000.00 |
| Total | $618,430.00 |

On motion, duly seconded, the report and recommendations of the Budget and Finance Committee, including the 1978 Budget, were approved.

Dr. Stokes presented the Council with the following breakdown of total MSMA expense by various functions for a six-year period indicating the percentage of expenses for various activities have remained fairly constant.

| *Expense* | *1977* | *1976* | *1975* | *1974* | *1973* | *1972* |
|---|---|---|---|---|---|---|
| Salaries | 39.2 | 46.1 | 42.3 | 42.9 | 39.8 | 31.9 |
| Pension | 5.1 | 4.7 | 5.5 | 10.6 | 5.0 | 3.2 |
| Commission and Committee | 10.9 | 10.7 | 10.1 | 9.6 | 8.5 | 7.6 |
| Annual Meeting | 8.6 | 7.9 | 7.5 | 7.9 | 8.5 | 7.6 |
| Council | 3.8 | 2.3 | 3.2 | 2.6 | 2.4 | 2.0 |

Dr. Stokes stated that a resolution passed by the 1976 MSMA House of Delegates regarding increased student participation in the MSMA Annual Session was discussed. This resolution carried with it the added commitment that some study of funding be made. This was discussed and the Council was requested to encourage the attendance at MSMA Annual Sessions of additional medical students. Staff was directed to correspond with the medical schools seeking a commitment from the schools regarding financing for these students and the State Association will match that funding if possible.

During a discussion, it was pointed out that perhaps local societies and/or local physicians might wish to make voluntary contributions to finance medical students' attendance at MSMA Annual Sessions.

The Budget Committee recommends that an increased number of student participation be encouraged on a local basis and local societies and individuals be encouraged to fund their expenses. On motion, duly seconded, this recommendation was approved.

The Budget Committee also recommended that increased attendance by MSMA members to the AMA conventions be encouraged. However, it was felt that the Association could not provide expenses for these additional physicians and recommends that we continue to fund only those individuals presently being funded to the AMA meetings. On motion, duly seconded, this recommendation was approved.

### 1978 AMA ANNUAL MEETING

Dr. Hetlage suggested that since the AMA Annual Meeting in June, 1978, is being held in St. Louis, that staff make a block of room reservations for the MSMA Council. On motion, duly seconded, it was agreed that all Councilors be encouraged to attend at their own expense and staff contact each Council member to determine if he will be attending the AMA meeting and if so, MSMA will attempt to make room reservations.

### REPORTS OF THE DEANS

Dr. David Challoner, Dean, St. Louis University School of Medicine, gave a brief update regarding University activities to the Council.

Dr. Challoner thanked the Council for its interest and help regarding the health manpower legislation and the resolution which the MSMA House passed and sent to the AMA.

He reported that Dr. Max Franklin has retired from the faculty of St. Louis University and has been named Associate Professor of Medicine Emeritus.

Dr. Charles Lobeck, Dean, University of Missouri-Columbia Medical Center, indicated that a study is now being conducted regarding the feasibility of a fund drive for construction of a new library at the medical center. The quality of the physical facility ranks 18th in the quality of the Big Ten and Big Eight.

Dr. Lobeck reported that they have received 600 applications for Medical School for next year; only Missouri residents are accepted.

He reported that there are nurse practitioner programs in

*(Continued on page 91)*

Special Article

# An Outline of the History of Cancer

## *Part III*

**CARL G. KARDINAL, M.D.,** ***Columbia***

G. *The Epoch of Experimental Study* (1889- )
  1. Early Transplant Studies
    a. *Arthur Hanau* transplanted a spontaneous rat vulvar carcinoma to the testes of two male rats in 1889.
    b. *Henri Morau* transplanted epitheliomata in mice and by 1893 had carried his experiments through 17 generations.
    c. *Carl Oluf Jensen* in 1903 was able to carry a transplanted mouse carcinoma through 19 generations.
    d. These early transplant studies were felt to completely disprove the parasitic theory of the origin of cancer.
  2. *David Paul von Hansemann* published a text in 1902 on the pathologic grading of tumors by the degree of anaplasia and departure from normal.
  3. *Martin Benno Schmidt* in 1903 described cancer cell emboli in the pulmonary vessels.
  4. *Ernest Edward Tyzzer*
    a. Reported in 1907 on the relationship of heredity to the development of tumors in mice.
    b. Showed that by crossing cancerous individuals that families of mice could be produced in which the incidence of spontaneous tumors was abnormally high.
  5. *Alexis Carrel and Montrose Thomas Burrows* were the first to grow a tumor in tissue culture in 1910.
  6. *Katsusaburo Yamagiwa and Koichi Ichikawa* reported in 1916 the experimental production of carcinoma in rabbits by painting their ears with coal tar.
  7. *James Ewing* (1866-1943)
    a. The first giant of United States oncology.
    b. Published a monumental text compiling all of the world's knowledge of cancer entitled *Neoplastic Diseases* in 1919.
  8. *Johannes Fibiger* (1867-1928)
    a. Professor of Pathology at the University of Copenhagen.
    b. Noted the presence of a nematode worm, which he termed *Spiroptera neoplastica*, in association with a spontaneous gastric carcinoma in three wild rats.
    c. Noted that the cockroach was the intermediate host for this worm.
    d. Fed infected cockroaches to rats. Of 62 rats that survived more than 60 days, 12 developed carcinoma of the stomach.
    e. The Spiroptera and their ova were noted in the primary gastric tumors, but not in the metastases.
    f. For this work, which was originally published in 1913, he was awarded the Nobel Prize in medicine and physiology in 1926.
    g. This was the first Nobel Prize for cancer research and the only one awarded until 1966.
    h. Fibiger's research has never been duplicated and exactly what he observed remains an enigma.
  9. *Peyton Rous* (1879-1970)
    a. In 1909, a local poultry breeder brought a Plymouth Rock hen with a large sarcomatous tumor on its breast to Rous at the Rockefeller Institute.
    b. Tumors were induced in normal live hens by a cell-free filtrate of the original tumor.
    c. Published in 1911 but was not accepted.
    d. Ewing felt it was an example of chemical carcinogenesis and that the possibility of an invisible microorganism was highly unlikely.
    e. Richard Shope's demonstration of the viral etiology of rabbit fibromas in 1932 and John Bittner's description of the milk factor in mouse mammary carcinoma in 1936 gave support to Rous's earlier work.

    f. Nominated for the Nobel Prize more than 20 times before he was awarded the 1966 prize which he shared with Charles Huggins.

10. *George Nicholas Papanicolaou* (1883-1962)
    a. Exfoliated cancer cells were noted many years before Papanicolaou, but the diagnostic potential was not recognized.
        (1) Walsche noticed malignant cells in the sputum of a patient with lung cancer in 1843.
        (2) Beale noted malignant cells in the sputum of a patient with pharyngeal carcinoma in 1860.
        (3) Sanders noted cells and tissues fragments in the urine of patients with bladder cancer in 1864.
        (4) Luecke and Krebs did cytologic studies of pleural and peritoneal exudates in 1867.
    b. Papanicolaou published his first report on the vaginal smear for the diagnosis of cancer of the cervix in 1928, but it went essentially unnoticed.
    c. In 1942, he developed an accurate staining procedure for uterine cancer cells.
    d. In 1943, he published a monograph with Herbert F. Traut entitled *Diagnosis of Uterine Cancer by the Vaginal Smear.*
    e. This aroused the interest of the medical community and was confirmed within a year.
    f. During his lifetime, the death rate from carcinoma of the cervix declined by 50%.

H. *The Birth of Radiology*
1. *Wilhelm Conrad Röntgen* (1845-1923) described x-rays in 1895. Their significance to medicine was immediately recognized.
2. *Henri Becquerel* (1852-1908) described the spontaneous radioactivity of pitchblende in 1896.
3. *Pierre and Marie Curie* purified radium from pitchblende in 1898.
4. *Tage Anton Ultimus Sjögren* (1859-1939) successfully used x-rays to treat skin cancer in 1899.
5. *Ernst August Franz Albert Frieben* described the first case of radiation-induced cancer in 1902 in a factory worker who made roentgen tubes.
6. *Goldberg and London* described the use of radium in the treatment of skin cancer in 1903.
7. *Bergonie and Tribondeau* described the general law of radiosensitivity in 1906: "The greater the reproductive activity of the cells, the more prolonged the process of karyokinesis, and the less definitely fixed their morphology and function, the more intense is the action of x-rays upon them."
8. *Max Otten* made the first autopsy-confirmed diagnosis of lung cancer by x-ray in 1906.
9. *Guido Holznecht* made the first diagnosis of stomach cancer by x-ray in 1908 using bismuth mixed with mashed potatoes as the contrast medium.
10. *Henri Dominici*
    a. In 1908, he described the principle of filtration in radiation therapy.
    b. Noted less skin change by using lead and paper filters when treating deep tumors.
11. *The German Gynecologic Society* (May 16, 1913)
    a. Krönig, Gauss, Burnm, Döderlein and Kroemer reported on the treatment of gynecologic cancer with x-ray and radium.
    b. This meeting was largely responsible for the substitution of radiation therapy for surgery for the treatment of these diseases all over the world.
12. Therefore, over a period of less than 20 years since their discovery, roentgen rays were firmly established in medicine both diagnostically and therapeutically.

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**The history of cancer is as old as the history of medicine itself. Tumors were recognized and treated during the classic civilizations of ancient Egypt, Greece and Rome. Multiple etiologic theories and treatments emerged over the centuries. Many of these were mystical and illogical, but there was a slow progression of scientific knowledge. The author has utilized an outline format to present an extensive collection of material.**

**This is the third and final segment of this article.**

**Dr. Kardinal is Director of Internal Medicine, Ellis Fischel State Cancer Hospital and Cancer Research Center. This investigation was supported in part by Cancer and Leukemia Group B Grant CA 12046 from the National Cancer Institute, DHEW.**

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I. *The Development of Cancer Chemotherapy*

1. Whereas surgery and radiation therapy evolved in an orderly manner from a reasonably scientific base, chemotherapy has its roots firmly implanted in sorcery.
   - a. See Section C-4abc.
   - b. According to Bainbridge (1914), "Hardly any animal has escaped making its contribution in hide or hair, tooth or toenail, thymus, thyroid, liver or spleen, in the vain search for a means of relief."
   - c. *John Muir* of South Africa claimed in 1906 to have cured cancer by the following:
     - (1) Extracts of the bark and leaves of the cancer bush *(Sutherlandia frutescens)* given internally.
     - (2) He also claimed that the oil that accumulates in the pipe of a "dagga" smoker applied externally has cured cancer in three days.
   - d. *John Beard* in 1911 proposed the enzyme treatment of cancer and excellent results.
     - (1) Consisted of oral pancreatic extract and ox gall, topical pancreatic gland extract in glycerin and injections of trypsin.
     - (2) When evaluated in a prospective manner by Bainbridge of New York Skin and Cancer Hospital in 100 cases and shown to be of no benefit, Beard and his followers continued to promote it as a cure.
   - e. *Serum from Birds of Prey* (1904)
     - (1) "Two accredited physicians with European training" fed cancer tissue and cancer "juice" to birds of prey for months.
     - (2) The birds were killed and their serum injected into 15 patients with cancer.
     - (3) There was no benefit and the treatment was abandoned.
   - f. *Otto Schmidt and Antimeristem or Cancroidin*
     - (1) In 1905, Schmidt claimed to have isolated and cultivated pure cultures of the organism that caused cancer.
     - (2) A vaccine was prepared from the pure killed culture and was injected into cancer patients in small but increasing doses.
     - (3) A serum was developed also by injecting increasing doses of the organism into a test animal.
     - (4) The drug, under the name "Cancroidin," was tested at the Middlesex Hospital and found to be of no value.
     - (5) The same drug later reappeared under the name "Antimeristem" and was promoted in the lay press as a cancer cure.
     - (6) The proponents of the drug made claims that "articles from the pens of experts" were attempting "to hush up" the public knowledge of the "40 cures of cancer and 304 improvements, in part approaching cures" obtained by the use of this drug.
   - g. *Chian Turpentine* given by mouth or by injection was a popular treatment for cancer from 1882 to 1900.
   - h. *Doyen's Serum* was based upon the isolation of *Micrococcus neoformans* from tumors. The serum was tested but rapidly abandoned in 1905.
   - i. *Sodium Oleate and Ox Gall*
     - (1) Webb in 1901 proposed that cancer is an uncontrolled cell proliferation due to the deposition of cholesterin from injury or from a deficiency of the liver to produce bile salts.
     - (2) Sodium oleate and ox gall were given to attempt to get the cholesterin into solution.
     - (3) Trials were abandoned in 1905.
   - j. *Molasses treatment* was used in Australia in 1902. It was given by mouth; ulcerated breasts were dressed with it; tampons were soaked in it.
   - k. *Violet Leaves*
     - (1) Extracts of violet leaves that possess emetic and cathartic properties had been used in medicine since 1854.
     - (2) In 1901, the lay press publicized an apparent cancer cure by "fomentations made from an infusion of green violet leaves."
     - (3) There followed other claims of cures and further publicity by the secular press.
     - (4) Clinical trials were done at the Middlesex Hospital and reported in 1906.
   - l. *The Mattei Electrohomeopathic System*
     - (1) From 1880 to 1906, Count Caesar Mattei of Italy promoted the use of

"green electricity" and homeopathic doses of various herbs orally as a cure for cancer.
    (2) An investigational committee was appointed by the *British Medical Journal* and clinical trials were conducted on a few patients.
    (3) The committee emphasized to the five patients tested that they should have proper surgical attention, but they refused "so strong was their belief in the new remedy."
    (4) The trial continued for a year with no documented results and then claims were made that the committee had a prejudicial attitude.
  m. *The Cardigan, Wales Cancer Cure*
    (1) Two farmers, Daniel and John Evans, claimed to cure cancer by the use of a secret paste.
    (2) The treatment was administered under a black cloth and applied by the patients' own brushes.
    (3) The lay press claimed that the medical profession was unwilling to investigate this treatment: "Supposing an angel from Heaven with an infallible specific to heal instantaneously every case of cancer, the Cancer Research Committee would refuse to recognize the sudden disappearance of cancer from the maladies of mankind unless they were informed of the precise ingredients of the specific."
  n. *Potassium Arsenite*
    (1) The first agent given internally that truly affected the course of a malignant disease in a favorable manner.
    (2) Use in chronic leukemia described by Lissauer in 1865.
    (3) Use in lymphosarcoma described by Billroth also in 1865.
2. *Caustics and Escharotics*
  a. Topical escharotic agents have been used since antiquity for the treatment of cutaneous or ulcerated malignancies.
  b. Arsenical pastes were used by the ancient Egyptians, Hippocrates and Galen, and their use continued into the early 20th century.
  c. *Plunket's Paste* (18th century)—Crow's

**SAINT LOUIS SURGICAL SOCIETY**

*presents the*

**FIFTY-FOURTH HODGEN LECTURE**

**Guest Speaker**

**ELLIOTT W. STRONG, M.D.**

*Memorial Hospital*
*for*
*Cancer and Allied Diseases*
*New York, New York*

**"The Current Status of Treatment of Cancers of the Head and Neck"**

**Tuesday, March 7, 1978**
**6:00 P.M.**

**St. Louis Medical Society Auditorium**
**3839 Lindell Boulevard**

*All members of the Profession are invited*

feet, dog fennel, sulphur and arsenic.

  d. *Canguoin's Paste* (c. 1850)—Zinc chloride and flour.
  e. *Manec's Paste* (c. 1890)—Arsenic, cinnabar and burnt sponge.
  f. *Marsden's Paste* (c. 1890)—Arsenous acid and powdered acacia.
  g. Originally felt that caustics had a selective action on cancer.
  h. In 1911, *Dr. Roswell Park* of Buffalo felt that the advocacy of caustics is based upon the local reaction resulting in blockage of lymph channels. This tended to wall off the area of pathologic activity and destroy scattered cancer cells.

3. *Charles Brenton Huggins* (1901-      )
  a. Considered by some to be the father of modern chemotherapy for his monumental studies on the effect of castration, estrogen and androgen on the serum acid phosphatase and the clinical course of *prostatic carcinoma* in 1941.
  b. Based argument upon the earlier observation of Alexander and Ethel Gutman in 1936 that prostatic cancer and its metastases secrete acid phosphatase.
  c. Described the beneficial effects of castration and estrogens with the associated decrease in acid phosphatase.
  d. Described activation by androgens with increase in acid phosphatase.
  e. Noted that certain cancers retain the biochemical properties of their cells of origin.
  f. In 1966, was awarded the Nobel Prize for medicine and physiology which he shared with Peyton Rous.
4. *Alkylating Agents*
  a. *Krumbhaar and Krumbhaar*
    (1) In 1919, he described the autopsy findings of soldiers dying from exposure to sulphur mustard gas in World War I.
    (2) Noted bone marrow aplasia, dissolution of lymphoid tissue and ulceration of the gastrointestinal tract.
    (3) These observations remained unnoticed for more than 20 years.
  b. *Chemical Warfare Service of World War II*
    (1) Pharmacologic studies were performed for this group by Goodman, Gilman, Karnofsky and others.
    (2) Reconfirmed Krumbhaar's studies.
    (3) Recognized the potential use of nitrogen mustard for the treatment of cancer.
  c. *Clinical Trials with Nitrogen Mustard Started:*
    (1) In 1942 at Yale by G. E. Lindskog.
    (2) In 1943 at the University of Chicago by Leon Jacobsen.
    (3) In 1946 at Memorial Sloan Kettering by C. P. Rhoads.
  d. By 1946, the clinical activity of nitrogen mustard in Hodgkin's disease, lymphoma and leukemia had been well documented.
  e. Other individuals involved in the early clinical trials included Wintrobe, Dameshek and Spurr.
5. *Sidney Farber* (1903-1973)
  a. Leuchtenberger observed in 1944 that folic acid concentrates inhibited the growth of sarcomas in mice.
  b. Based on this, Farber tried two conjugates of folic acid, pteryldiglutamic acid (diopterin) and pteryltriglutamic acid (triopterin) in human acute leukemia, but the leukemic process accelerated.
  c. This suggested that the growth of leukemic cells may be inhibited if they are deprived of folate.
  d. At Farber's request, Subbarow developed a series of folic acid antagonists including aminopterin.
  e. In November, 1947, Farber administered aminopterin to a critically ill child with acute leukemia and induced the first temporary remission of that disease.
6. *Min Chiu Li and Roy Hertz* in 1956 reported the cure of women with metastatic choriocarcinoma with the use of methotrexate.
7. After a slow start, cancer chemotherapy was off and running by the mid to late 1950s.

*Reprints:* *Carl G. Kardinal, M.D.*
*Ellis Fischel State Cancer Hospital*
*115 Business Loop 70 West*
*Columbia, Mo. 65201*

When pain complicates acute cystitis*

# Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl

for the pain for the pathogens

☐ **Early relief of painful symptoms** such as burning and pain associated with urgency and frequency.

*Nonobstructed; due to susceptible organisms

☐ **Effective control of susceptible pathogens** such as *E. coli, Klebsiella-Aerobacter, Staph. aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris.*

☐ **Appropriate antibacterial therapy:** up to three days therapy with Azo Gantanol, then 11 days with Gantanol® (sulfamethoxazole), 0.5 Gm tablets.

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** In adults, urinary tract infections complicated by pain (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis* and, less frequently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies.

**Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides.** Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

**Contraindications:** Children below age 12; sulfonamide hypersensitivity; pregnancy at term and during nursing period; because Azo Gantanol contains phenazopyridine hydrochloride it is contraindicated in glomerulonephritis, severe hepatitis, uremia, and pyelonephritis of pregnancy with G.I. disturbances.

**Warnings:** Safety during pregnancy not established. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

**Adverse Reactions:** *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, Stevens-Johnson syndrome, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *G.I. reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

**Dosage:** Azo Gantanol is intended for the acute, painful phase of urinary tract infections. *Usual adult dosage:* 2 Gm (4 tabs) initially, then 1 Gm (2 tabs) B.I.D. for up to 3 days. If pain persists, causes other than infection should be sought. After relief of pain has been obtained, continued treatment with Gantanol (sulfamethoxazole) may be considered.

**Note:** Patients should be told that the orange-red dye (phenazopyridine HCl) will color the urine.

**Supplied:** Tablets, red, film-coated, each containing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 500.

ROCHE

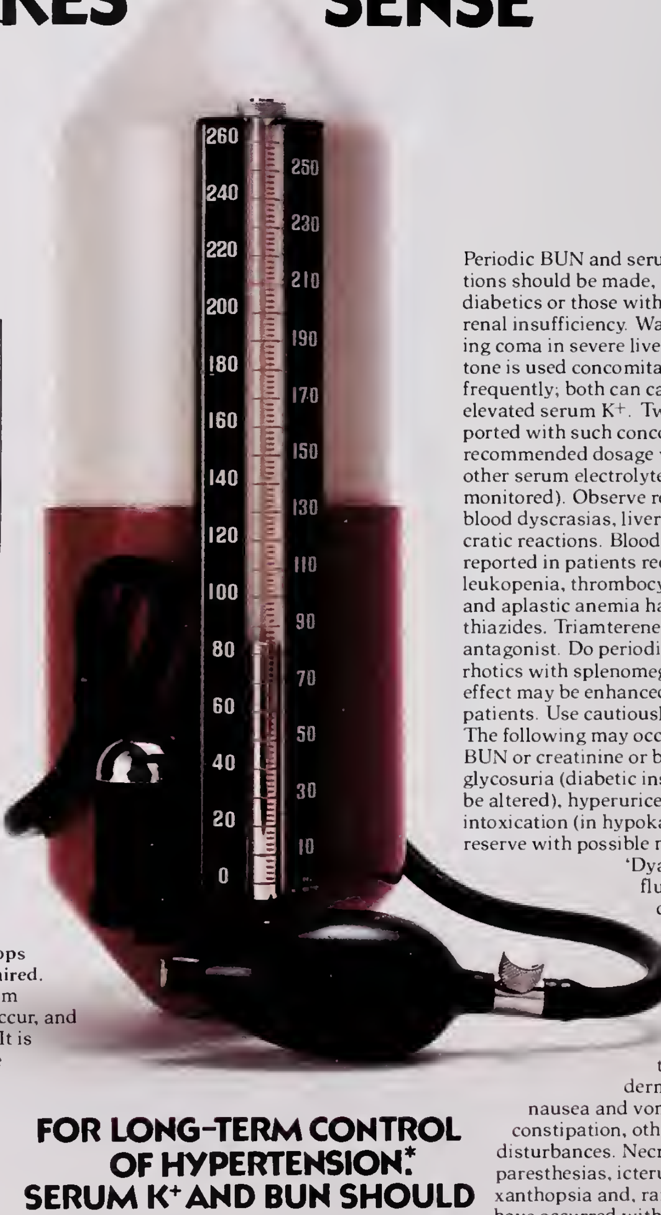
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

# TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

# DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

## MAKES SENSE



**Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:**

* Warning
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

**Contraindications:** Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum $K^+$ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict $K^+$ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum $K^+$ frequently; both can cause $K^+$ retention and elevated serum $K^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

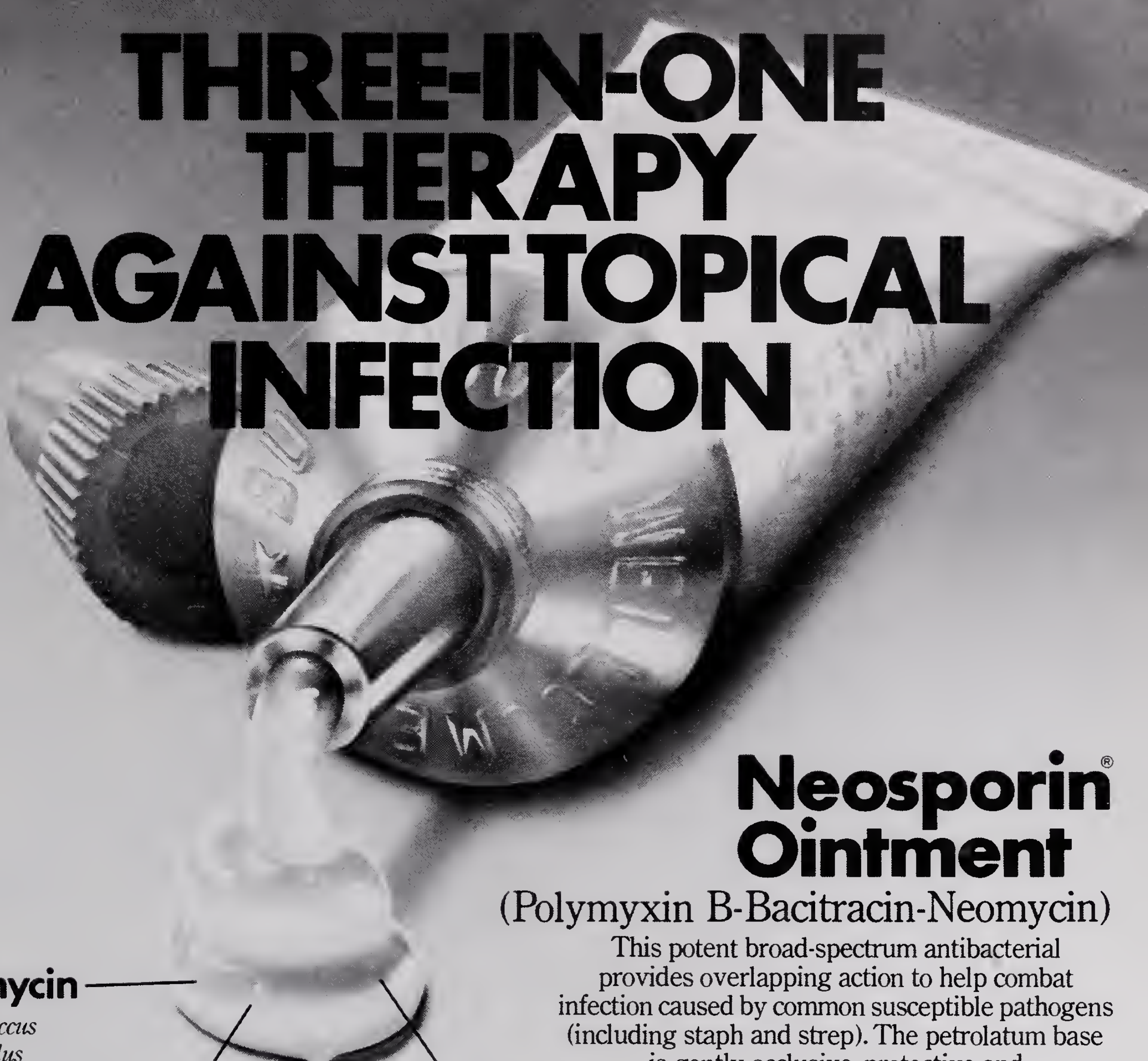
**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

## FOR LONG-TERM CONTROL OF HYPERTENSION.* SERUM K⁺ AND BUN SHOULD BE CHECKED PERIODICALLY. (SEE WARNINGS SECTION.)

SK&F CO., Carolina, P.R. 00630

**SK&F CO.**
a SmithKline company



# THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION

**Neosporin® Ointment**

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

**Neomycin**
*Staphylococcus*
*Haemophilus*
*Klebsiella*
*Aerobacter*
*Escherichia*
*Proteus*
*Corynebacterium*
*Streptococcus*
*Pneumococcus*

**Bacitracin**
*Staphylococcus*
*Corynebacterium*
*Streptococcus*
*Pneumococcus*

**Polymyxin B**
*Pseudomonas*
*Haemophilus*
*Klebsiella*
*Aerobacter*
*Escherichia*

*In vitro* overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome
Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

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**Neosporin® Ointment**

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

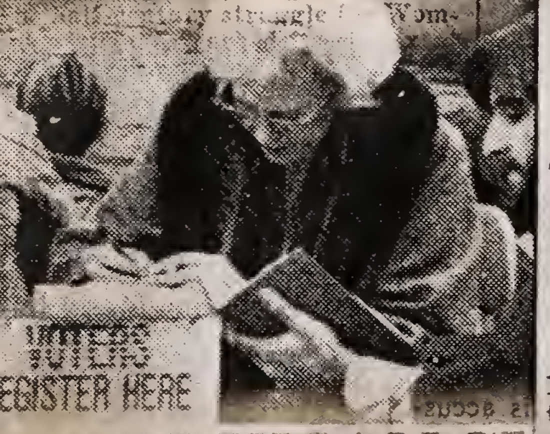
# COLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification
at His Home Without
Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony,
But Both Factions Are

WASHINGTON, Aug. 26, 1920—



# Social Security Bill Is Signed; Gives Pensions to Aged, Job

*Roosevelt Approves Message Intended to Benefit 30,00*
*Persons When States Adopt Cooperating Laws—He C*
*the Measure 'Cornerstone' of His Economic Progra*

WASHINGTON, Aug. 14
The Social Security Bill, pr
a broad program of unemp
insurance and old age p
and counted upon to bene
20,000,000 persons, became
day when it was signed by
dent Roosevelt in the pres
those chiefly responsible f
ting it through Congress.

Mr. Roosevelt cal the
"the cornerstone st
which is being
me s comple

# SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution
is Sent to House, Where
Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to

# TRUMAN CLOSES
# TED NATIONS CONFERENC
# ITH PLEA TO TRANSLATE
# CHARTER INTO DEEDS

## NEW WORLD HOPE

President Hails 'Great
Instrument of Peace,'
Insists It Be Used

## HISTORIC LANDMARK

Meeting Gives Standing
Ovation as Executive
Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

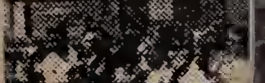
"Oh, what a great day this can be in history!"

CO

# UL
# SIGNE

# the Draf
# Ends No

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the



# PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

*The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.*

*The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.*

## The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

## The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

## The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA
THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005

# MSMA Disability Insurance Programs

These Programs are sponsored by the MSMA for the benefit of its members.

## • *Personal Disability Income*

Benefits are available up to $2,166 per month. Life Time Accident/to Age 65 Sickness Coverage—flexible waiting periods available from seven days up to one year—the plan is applicable for the Individual or Incorporated Physician. Coverage for private flying is available.

This individual contract with Special Renewal Guarantees is the ideal foundation for your Disability Income Protection Program.

## • *Office Overhead Expense*

Disability Insurance Coverage up to $2,000 per month to pay your continuing office expenses while you are unable to work due to illness or injury. Benefits are payable after 30 days continuous disability and begin retro-active from the first day of disability. The benefit is a maximum of 24 months.

Your premium is a tax-deductible business expense—your individual contract has Special Renewal Guarantees—benefits may be assigned to your corporation.

## • *Major Hospital-Nurse Expense*

Pays 80% of expenses incurred over deductible you select of $250, $500 or $1,000 up to $25,000 maximum per Illness or Injury. Excellent supplement for Blue Cross. Your employees are eligible, too. Pays in addition to any other insurance you have.

*Be sure your Disability Income Insurance Plan is up-to-date and adequate for your needs. Professional service on your programs is available on a personal basis from your Administrators.*

***For full particulars, the Administrators invite you to call or write today.***

***MSMA Insurance Programs Administrators***

Western Missouri Administrator
FRED. S. JAMES & CO. OF MISSOURI, INC.
2 Crown Center • 2420 Pershing Rd. • Kansas City, Mo. 64108
(816) 842-6670

Eastern Missouri Administrator
FRED. S. JAMES & CO. OF MISSOURI, INC.
720 Olive Street . . . Suite 607 Saint Louis, Missouri 63101
(314) 421-1838

*•Serving MSMA Since 1943•*

# President's Message

## MEDICAL CARE ON THE 'OPEN MARKET'

We are all aware that the Federal Trade Commission has challenged the basic belief of the medical profession regarding advertising. In keeping with its overall philosophy, the Commission proposes to encourage competition without concern for the quality of the product and to "defranchise" the delivery of health care by physicians. Its lack of concern for the need for quality controls in no way influences the rationality of its pursuit. The FTC is attempting to gain control over all nonprofit organizations as well as the practice of medicine in this country. When combined with the overwhelming drive of militant consumerism, this has placed our free enterprise system in jeopardy.

Howard J. McAlhany, M.D.

The Commission does not have the slightest concern for the *quality of medical care,* for the group who is delivering this care or whether or not these individuals are professionals. It has no interest regarding professional training, specialty boards or the significant input of organizations such as the AMA in the training of health professionals and the assurance of quality control in delivery of health care.

The FTC believes it can accomplish its goal by placing medicine on the market place. The intent of this agency poses a much greater threat to the delivery of health care than the Department of HEW or a national health program. The agency regards health care as a commodity to be dispensed as if it were some giant public utility. The cheapest imitation is what it wants for the public, i.e., the lowest possible price. This would mean that the public must select medical care with the same lack of information that we have for buying any consumer product. The physician cannot live with this concept. Medicine must never be regulated to the point where the consumer shops for the lowest bidder, "quality be damned" and the concept of caveat emptor.

# MSMA Auxiliary

## THE IMPAIRED PHYSICIAN

What a hush-hush subject! For years, the medical community has denied that any physician was impaired in any way but, finally, most of us have realized that problems can be solved only if we face them.

**Mrs. W. Jack Stelmach**
**President**

Therefore, the MSMA Auxiliary will again join with the Missouri Psychiatric Association in presenting a seminar on a topic that is vital to all of us at the upcoming Annual Convention in Kansas City. The seminar on "Impaired Physicians and Their Families" will be conducted by Dr. H. James Lurie of Seattle. We hope that as many physicians as possible will attend to hear his suggestions for helping ourselves or our colleagues who are victims of alcoholism, drug addiction or "workoholism." Dr. Lurie will even offer "life-planning exercises" to help us avoid falling into these situations that cause so much distress.

I'm confident that we all now realize that in the professions, physicians have the second highest incidence of alcoholism (ministers are No. 1). Learn more about this unfortunate statistic at the seminar from 1 PM-4 PM on Friday, April 14.

Also, the Auxiliary extends a sincere invitation to all spouses to attend any of our Auxiliary Convention events, whether or not they are Auxiliary members. Our luncheons will be delightful. If you need to attend a professional luncheon, please ask your spouse to join us. We welcome all.

For couples and "unattached" MSMA or Auxiliary members who are attending the conventions, the Auxiliary is planning a special "Dutch Treat" dinner party at the famous Waldo Astoria Dinner Theater on Thursday, April 13. The play will be "The Latest Mrs. Adams," a comedy-mystery. The $13 price will include dinner, the play and round-trip bus fare from Crown Center Hotel. What a way to go!

One word of warning. We have reserved a limited number of seats and hope to be able to add more if we have a large response. However, reservations are definitely on a "first come, first served" basis.

I look forward to seeing you at the Annual Convention.

# EDITORIAL

## CONGRESS AND MEDICINE: 1977—IT WAS A VERY GOOD YEAR

Despite a hard-line attitude among many wielders of political power and influence in Washington, every major Congressional move against medicine in 1977 was defeated, stalled or defanged.

The achievements reflected not only the AMA's vigor in Washington but also its amplified communication and liaison with component societies, specialty societies, other health-care organizations, insurers and businessmen.

Defeated were:

- A clear-cut Congressional sanction for Federal Trade Commission jurisdiction over nonprofit organizations, including medical societies. Denial of that sanction means the FTC's current forays against physicians and their organizations remain subject to the kind of challenge that the AMA has mounted.
- Subjection of physicians' offices to certificate-of-need programs, as called for in several versions of hospital "cost-containment" proposals.

Stalled were Administration proposals for price controls on hospitals and a fixed national dollar limit on capital expenditures of health institutions.

Defanged was H.R. 3, the Medicare-Medicaid Anti-Fraud and Abuse Amendments signed into law by President Carter as P.L. 95-142.

Our AMA federation supported the basic fraud and abuse control principle of H.R. 3 but successfully achieved such modifications as these:

- The definition of "shared health facilities"—originally encompassing almost all group practices—is narrowed more closely to the originally intended "medicaid mills" and the like. The practitioner and groups of practitioners are generally exempted from H.R. 3's cumbersome reporting and disclosure requirements.
- Medicare-Medicaid review programs duplicating those of PSROs are waived, provided the latter are found to be performing their duties effectively. Also, authority for "program review teams" to evaluate medical care—duplicating PSRO review—is repealed.
- The period for a PSRO's conditional status, and the starting time for ambulatory-care review under PSRO, are extended.

Those are just a sample of the changes our federation achieved in H.R. 3, but they symbolize the complexity of its many annual legislative tasks.

In 1977, the AMA stepped up its liaison with both Congress and the White House, and the AMA and all parts of the federation worked closer than ever on these critical issues to achieve these legislative results.

Organized medicine will face many critical legislative issues in the next year, including amendments to the Planning Act, many other Public Health Service programs and National Health Insurance. Medicine must continue to pull together on legislation in order to protect physicians and patients from legislative acts that would reduce the quality of medical care, increase costs or reduce access.

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★ The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 500(a) (3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

**Ed Bixby Institute for Postgraduate Education**
Research Medical Center
2316 E. Meyer Blvd.
Kansas City 64132
(816) 276-4167

| | |
|---|---|
| **Apr. 5** | Hematology |
| **June 2** | Drug Actions and Interactions |
| **Aug. 2** | Anxiety, Depression and Psychosexual Problems |

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**University of Missouri-Columbia**
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

| | |
|---|---|
| **Mar. 2-4** | Seventh Trans-Disciplinary Symposium on Philosophy and Medicine—The Moral Uses of New Knowledge in the Bio-Medical Sciences |
| **Mar. 8-9** | Preceptor's Day |
| **Mar. 22-23** | Common Problems in Cardiology |
| **Apr. 6-7** | 24th Annual Urology Seminar (Kansas City) |
| **Apr. 25** | Pediatrics Refresher Course—1978 |
| **Apr. 29** | Annual Day of Clinical Radiology |
| **May 2-3** | Sports Medicine Conference |
| **May 10** | Stroke |

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**American College of Physicians**
*Contact:* Thomas W. Burns, M.D.
University of Missouri School of Medicine
Columbia 65201

| | |
|---|---|
| **Mar. 9-11** | Missouri Regional Meeting (Breckenridge Pavilion Inn, St. Louis) |

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**Mercy-Baptist Eye Seminars**
St. John's Mercy Medical Center
615 S. New Ballas Rd.
St. Louis 63141
*Contact:* Richard B. Oglesby, M.D.

| | |
|---|---|
| **Apr. 2** | Annual Spring Seminar—Highlights of Ophthalmology |

**The Edward Mallinckrodt Institute of Radiology—Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| **Mar. 13** | CT Scanning for Treatment Planning and Follow-up of Primary Brain Tumors |
| **Apr. 10** | Newer Aspects of Neuroradiology |
| **May 8** | Hematologic Bone Disease |
| **May 25-26** | Fifth International Symposium on Intestinal Microecology |
| **Aug. 10-11** | Workshop in Soft Tissue Surgery (Contact J. Regan Thomas, M.D., Section of Otolaryngology) |

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**University of Kansas College of Health Sciences**
Division of Continuing Education
Rainbow at Olathe Blvd.
Kansas City, Kan. 66103
(913) 588-7130

| | |
|---|---|
| **Mar. 9-10** | Recent Advances in Therapeutics |
| **Mar. 13-15** | Focus on Developmental Disabilities (Pediatrics) |
| **Mar. 16-17** | Rehabilitation Needs of the Cancer Patient |
| **Apr. 3-4** | 29th Annual Postgraduate Symposium on Ophthalmology—Ocular Manifestations of Systemic Disease |
| **Apr. 7-9** | 29th Annual Postgraduate Symposium on Anesthesiology |

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**St. John's Mercy Medical Center**
615 S. New Ballas Rd.
St. Louis 63141
(314) 569-6000
*Contact:* James G. Blythe, M.D.

| | |
|---|---|
| **May 11-12** | Tenth Annual Matt Weis Symposium—Endocrinology and Infertiliy in Obstetrics and Gynecology |

**University of Missouri-Kansas City School of Medicine—Kansas City Southwest Clinical Society**
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
*Contact:* Alta Bingham

| | |
|---|---|
| Feb. 25-Mar. 4 | Late-Winter Traveling Medical Educational Course<br>(Maui, Hawaii) |
| Apr. 6-8 | Update for the Primary Care Physician |
| Apr. 20-21 | Surgical Techniques |
| May 4-6 | Seminar: Update in Obstetrics and Gynecology |
| May 19-20 | The Long Weekend—Cardiovascular Disease I and II |
| June 1-2 | Symposium on Physical Fitness |

**Washington University School of Medicine**
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673
*Contact:* Loretta Giacoletto

| | |
|---|---|
| Mar. 2-3 | Rheumatology for the Practicing Physician |
| Mar. 6-May 22 | Internal Medicine Board Examination Review<br>(Steinberg Auditorium, Jewish Hospital) |
| May 3-5 | Current Topics in Infectious Diseases |
| Apr. 6-7 | Venous and Arterial Thrombosis: Current Status of Diagnosis, Prevention and Therapy |
| Apr. 13-14 | Fifth Annual Symposium on Ob-Gyn |
| Apr. 17-18 | Hysteria in Children |
| April 20 | Hypertension Update |
| May 18 | Third Annual Symposium on Surgical Problems in Children |
| May 19-20 | Neuromuscular Diseases |
| Nov. 10-12 | Fifth Annual Symposium—Anesthesia and the Geriatric Patient |

**American College of Obstetricians and Gynecologists**
*Contact:* ACOG
One E. Wacker Dr., Chicago, Ill. 60601

| | |
|---|---|
| Oct. 20-21 | Workshop on Practice Productivity |

**Ellis Fischel State Cancer Hospital—Cancer Research Center**
115 Business Loop 70 West
Columbia 65201
(314) 449-2711
*Contact:* Carlos Perez-Mesa, M.D., Program Coordinator

| | |
|---|---|
| Apr. 15 | New Vistas in Cancer of the Breast |

**Greene County Medical Society**
223 Professional Bldg., Springfield 65806
(417) 869-2531
*Contact:* James E. Thompson, Jr., Executive Director

| | |
|---|---|
| Sept. 29 | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

**Baptist Memorial Hospital**
6601 Rockhill Rd.
Kansas City 64131
*Contact:* Margery B. Hartsock, Director of Public Relations (816) 316-3500, Ext. 7230

| | |
|---|---|
| May 9 | 16th Annual Pediatric Seminar—Pediatric Emergencies |

**The Children's Mercy Hospital**
24th at Gillham Rd.
Kansas City 64108

| | |
|---|---|
| Mar. 8-11 | Second International Symposium on Pediatric Otorhinolaryngology |

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Annual Session

in Kansas City

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24 SCIENTIFIC SESSIONS

•

See the
Preliminary Program
on page 50

# MSMA Members Receive Physician's Recognition Award

Eighty-seven MSMA members were recipients of the MSMA-AMA Physician's Recognition Award (PRA) during the period of October-November, 1977.

The Award is a voluntary continuing medical education (CME) program designed to improve the physician's competence and recognize physicians who earn it by completing the educational requirements.

Following are names of the most recent award recipients:

Ingred R. E. Albert, M.D., Overland
James E. Allan, M.D., Jefferson City
James H. Allen, M.D., Florissant
George D. Amromin, M.D., Columbia
Jerome M. Aronberg, M.D., Clayton
Lysle M. Bach, M.D., Hannibal
Matthias H. Backer, M.D., St. Louis
Milagros T. R. Banton, M.D., St. Louis
Glenn A. Barr, M.D., Kansas City
Hubert H. Bell, M.D., Kansas City
Harry I. Berland, M.D., Clayton
Jerome E. Block, M.D., Sedalia
Michael A. Blum, M.D., Kansas City
Gary E. Bodenhausen, M.D., Kansas City
John J. Bonacorsi, M.D., St. Louis
Stephen F. Bowen, M.D., St. Louis
William D. Bradshaw, M.D., Columbia
Emery R. Calovich, M.D., Kansas City
Juan O. Cardenas, M.D., Florissant
Robert F. Cerza, M.D., St. Joseph
Nadindla C. Chennaiah, M.D., Farber
Harry B. Cohen, M.D., Columbia
Byron S. Cooper, M.D., St. Louis
Wilbur D. Dabbs, M.D., Neosho
Jack M. Davis, M.D., Kansas City
Tony M. Deeths, M.D., Creve Coeur
Lawrence G. Evans, M.D., St. Louis
James F. Fairchild, M.D., Perryville
John J. Ferguson, M.D., Poplar Bluff
Fred D. Fowler, M.D., Kansas City
Marvin L. Fowler, M.D., West Plains
Royal S. Garner, M.D., Jefferson City
Joseph R. Guastello, M.D., Kansas City
Grinny H. C. Ho, M.D., Sikeston
Thomas R. Hunt, M.D., Kansas City
Victor T. Jones, M.D., St. Charles
Donald L. Kaminski, M.D., St. Louis
Nicola Y. Katf, M.D., North Kansas City
Ireland W. Kimball, M.D., Parkville
Lynn H. Kindred, M.D., Kansas City
Allan E. Kolker, M.D., St. Louis
Harold G. Kunz, M.D., St. Louis
Rodger W. Lambie, M.D., Kansas City
Henry E. Lattinville, M.D., Bridgeton
John D. Lauer, M.D., St. Louis
Harry B. Levey, M.D., Kansas City
Kun Twu Liao, M.D., St. Louis
Don Lum, M.D., Fort Leonard Wood
Bert James Mackaman, M.D., Columbia
Levy M. Maravilla, M.D., St. Louis
Donald E. Menchetti, M.D., Springfield
Raul Mercado, M.D., St. Louis
Bin Mou, M.D., Nevada
Martin J. Mueller, M.D., Kansas City
Leopoldo M. Ortiguero, M.D., St. Louis
Leroy F. Ortmeyer, M.D., St. Louis
Oscar T. Pinsker, M.D., Kansas City
William H. Poggemeier, M.D., St. Charles
Daniel E. Potts, M.D., St. Louis
Donald A. Potts, M.D., Independence
Mohammad H. Rahman, M.D., St. Charles
Harold B. Rapp, M.D., Cape Girardeau
Sarvotham K. Reddy, M.D., Poplar Bluff
Efraim L. Reyes, M.D., Springfield
Kenneth D. Ridgeway, M.D., Macks Creek
Paul A. Roberts, M.D., Sweet Springs
Van M. Robinson, M.D., North Kansas City
Hunter B. Rogers, M.D., St. Louis
James G. Ruggles, M.D., Chesterfield
Margaret B. Scales, M.D., Kansas City
John S. Schengber, M.D., St. Louis
Arnold Schoolman, M.D., Kansas City
Jack E. Shalley, M.D., Kansas City
Alexander G. Smith, M.D., Springfield
Elbert E. Smith, M.D., Kansas City
Thomas L. Stern, M.D., Kansas City
Robert H. Sueper, M.D., Creve Coeur
Jose A. Temporal, M.D., St. Louis
Delbert E. Tiffany, M.D., Cape Girardeau
Michael J. Verta, M.D., St. Louis
Alberto B. Viloria, M.D., St. Louis
Charles M. Waggoner, M.D., Columbia
Donald M. Wald, M.D., Gladstone
Thomas J. Weiler, M.D., St. Louis
George P. Wilson, M.D., Columbia
Matthew C. Ziemianski, M.D., Kansas City

# New Members

**Carlos A. Araoz,** M.D., 1901 N. Westwood, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Araoz is a native of Argentina, received his preliminary education at College San Martin and his M.D. degree at Mendoza University in 1961. He specializes in pathology.

**Mary Elizabeth Arthur,** M.D., 727 Bellevue, Apt. 4-C, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Arthur is a native of Colorado Springs, Colo., received her preliminary education at Auburn University and her M.D. degree at the University of Arkansas in 1952. She specializes in anesthesiology and pulmonary medicine.

**Peter Allen Boyer,** M.D., 1505 Southwest Blvd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Boyer is a native of Providence, R. I., received his preliminary education at DePauw University and his M.D. degree at the University of Missouri in 1970. He specializes in internal medicine and endocrinology.

**Gary A. Conde,** M.D., 2509 Jackson, Joplin 64801, has become a member of Jasper County Medical Society. Dr. Conde is a native of St. Louis, received his preliminary education at Kansas University and his M.D. degree at the University of Kansas in 1976. He specializes in family practice.

**Donald John DiPasco,** M.D., 51 Magnolia Dr., Ladue 63124, has become a member of St. Louis County Medical Society. Dr. DiPasco is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Guadalajara in Mexico in 1974. He specializes in internal medicine.

**Larry Lee Doss,** M.D., 115 Business Loop 70 W., Columbia 65201, has become a member of Boone County Medical Society. Dr. Doss is a native of Arkansas, received his preliminary education at the State College of Arkansas and his M.D. degree at the University of Arkansas in 1973. He specializes in therapeutic radiology.

**Francisco A. Gador,** M.D., c/o St. Joseph Hospital Emergency Room, 1000 Carondelet Dr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Gador is a native of Iligan City, Philippines, received his preliminary education at Ateneo de Davao College and his M.D. degree at the University of the Philippines in 1969. He specializes in general practice and emergency medicine.

**Ranendra B. Ghosh,** M.D., 3400 Frederick, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Ghosh is a native of India. He received his M.D. degree at Batna Medical College in India in 1947. He specializes in psychiatry.

**Thomas Robert Glatter,** M.D., University of Missouri, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Glatter is a native of Dixon, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1960. He specializes in internal medicine and cardiology.

**James Edward Gray,** M.D., Dept. of Medicine, University of Missouri, Columbia 65201, has become a member of Boone County Medical Society. Dr. Gray is a native of Jonesboro, Ark., received his preliminary education at Harding College and his M.D. degree at the University of Missouri in 1971. He specializes in gastroenterology.

**James H. Habermann,** M.D., 1102 W. 32nd, Joplin 64801, has become a member of Jasper County Medical Society. Dr. Habermann is a native of Cassville, Wis., received his preliminary education at the University of Wisconsin and Marquette University and his M.D. degree at Marquette University in 1952. He specializes in pathology.

**K. Prabhakar S. Kamath,** M.D., 623 Sycamore, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Kamath is a native of India, received his preliminary education at M.G.M. College in India and his M.D. degree at the Bangalore Medical College in 1969. He specializes in psychiatry.

**John Thomas Kirchmer,** M.D., 6724 Troost Ave., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Kirchmer is a native of Richland, Wash., received his preliminary education at Texas A & M University and Lamar University and his M.D. degree at the University of Texas in 1970. He specializes in thoracic and cardiovascular surgery.

**John James Krautmann,** M.D., 1433 Southwest Blvd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Krautmann is a native of Fort Bliss, Tex., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1972. He specializes in orthopedic surgery.

**Hsien-Ell Lai,** M.D., 15th and State St., Lexington 64067, has become a member of Lafayette-Ray County Medical Society. Dr. Lai received his preliminary education at National Taiwan University and his M.D. degree at National Taiwan University in 1963. He specializes in general practice.

**Narayanan K. Mangalat,** M.D., 25 Jackson Ave., Medical Arts Bldg., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Mangalat is a native of India, received his preliminary education at St. Aloysius College and his M.D. degree at Government Medical College in India in 1963. He specializes in general, thoracic and cardiovascular surgery.

**Gonuguntla Venkata Nadu,** M.D., 2627 Telegraph, St. Louis 63129, has become a member of St. Louis County Medical Society. Dr. Naidu is a native of India, received his preliminary education at Intermediate and I.B.A. Government Arts College and his M.D. degree at Sri Venkateswara Medical College Tirupati University in 1964. He specializes in internal medicine and gastroenterology.

**Richard T. Padula,** M.D., 207 Highland Professional Tower, 6724 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Padula is a native of Philadelphia, Pa., received his preliminary education at Ursinus College and his M.D. degree at Jefferson Medical College in 1961. He specializes in thoracic and cardiovascular surgery.

**K. Thomas Papreck,** M.D., 370 S. Odell, Marshall 65340, has become a member of Saline County Medical Society. Dr. Papreck is a native of Evanston, Ill., received his preliminary education at Rockhurst College and his M.D. degree at the University of Missouri in 1974. He specializes in family practice.

**James Lee Rea,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Cole County Medical Society. Dr. Rea is a native of East St. Louis, Ill., received his preliminary education at the University of Illinois and his M.D. degree at St. Louis University in 1973. He specializes in otolaryngology and facial plastic surgery.

**Bernard Francis Rice,** M.D., 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Rice is a native of St. Augustine, Fla., received his preliminary education at Temple University and his M.D. degree at Temple University in 1956. He specializes in internal medicine.

**Gerald A. Wankum,** M.D., 825 Euclid, Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Wankum is a native of Jefferson City, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1976. He specializes in family practice.

**Robert P. Wankum,** M.D., 1101-D Southwest Blvd., Jefferson City, 65101, has become a member of Cole County Medical Society. Dr. Wankum is a native of Jefferson City, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1973. He specializes in ophthalmology.

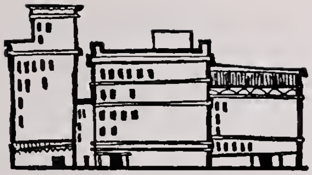
# In Memoriam

**Byron J. McGinnis,** M.D., 1140 Forder Rd., St. Louis 63129; a graduate of University of Cincinnati, 1926; member of St. Louis Medical Society; age 78; died Dec. 26, 1977.

**William H. Olmsted,** M.D., 4400 Lindell Blvd., Apt. 18, St. Louis 63108; a graduate of Johns Hopkins University, 1913; member of St. Louis Medical Society; age 91; died Jan. 5, 1978.

**Clinton Kleinschmidt,** M.D., 7624 Maryland, St. Louis 63105; a graduate of St. Louis University, 1917; member of St. Louis Medical Society; age 88; died Jan. 11, 1978.

**Thos. Leo Dwyer,** M.D., 119 E. Love St., Mexico, 65265; a graduate of St. Louis University, 1926; member of Audrain County Medical Society; age 79; died Jan. 1, 1978.



# NEWS From the Medical Schools

## UNIVERSITY OF MISSOURI-COLUMBIA

Cosmopolitan International, a civic organization with members all across the U. S. and in some other countries, has announced its commitment to support financially the development of a proposed Diabetes Center in Columbia. The Medical Center in Columbia has been chosen for this project because of its acknowledged expertise in the treatment of patients with diabetes and research in this field, especially juvenile diabetes.

It is hoped that a fund drive this year by Cosmopolitan will provide "seed money" for the first phase of the project. Eventually, a separate building is envisioned for the proposed center.

*Dr. Thomas Burns,* chief of endocrinology services at the Medical Center, says the proposed center would provide intense education for patients in how to manage the disease, diabetes, as well as provide educational and research facilities for medical and nursing students and other health professionals.

*Dr. Daniel Winship,* chief of gastroenterology service, returned on January 1 from a year's sabbatical at Yale University where he concentrated on courses and seminars offered in law, science and medicine regarding medical ethics. He was a Research Fellow at Yale Law School under a grant from Commonwealth Fund.

Income from the Bess Schooling University Medical Center Memorial Fund will be used to promote patient care at the Medical Center, according to the wishes of *Dr. Herbert W. Schooling,* chancellor of the Columbia campus. The memorial was established by funds contributed by friends after Mrs. Schooling's death last year.

Dr. Schooling has suggested that patient care include research support for the prevention and treatment of disease, support for patient comfort or help in other ways as determined by a three-member committee appointed by the Dean of the School of Medicine.

*Dean Charles C. Lobeck* has appointed *Dr. Frank L. Mitchell* and *Dr. Kenneth K. Keown,* staff physicians, and *Mrs. Mona Laird,* nurse practitioner at the University Hospital, to determine for what purposes available funds should be used. The three were involved in Mrs. Schooling's care while she was a patient at the Medical Center.

## SAINT LOUIS UNIVERSITY

*Rose C. Baldwin,* M.S.W., instructor in community medicine and community staff coordinator for the School of Medicine's teaching program in the Yeatman Community, has been elected a member of the board of directors of the Missouri Epilepsy Federation, Inc. for a two-year term.

Ms. Baldwin has been a member of the University faculty since 1974. She is first vice-president of the board of directors, Metropolitan St. Louis Sickle Cell Anemia Association, member of the St. Louis Chapter of the National Association of Black Social Workers, the Central Medical Center Community Medicine Advisory Council and the Children's Services, United Way Allocation Panel.

The Agency of International Development of the U. S. State Department has awarded a grant to *Doo Bong Ha,* Ph.D., Seoul National University, Korea, for study of the American system of teaching biochemistry and to carry out research in the Department of Biochemistry. During his one-year stay at the School of Medicine, Dr. Ha will work in association with *Anthony N. Martonosi,* M.D., professor of biochemistry, on various research projects.

The National Science Foundation has renewed a three-year research grant for $123,000 to *Carmine J. Coscia,* Ph.D., professor of biochemistry, to study enzymes in higher plants which synthesize antitumor agents used in cancer chemotherapy. Dr. Coscia is specifically investigating the subcellular localization and regulation of plant enzymes which synthesize the antitumor agents, vincristine and vinblastine.

*Robert E. Ryan,* M.D., clinical professor of otolaryngology, recently participated in several national and international conferences. At the University of Berlin in West Germany, he discussed "The Role of Hormones in the Etiology of Migraine" and "The Effect of the Oral Contraceptive on Proven Migraine Patients." At the University of Guilford in London, he presented the "Differential Diagnosis of Histaminic Cephalalgia and Acute Nasal Sinusitis." At the meeting of the American Academy of Ophthalmology and Otolaryngology, Dallas, Texas, he presented a course on "Headaches Seen in Otolaryngology."

*Henry E. Oppenheimer,* M.D., associate clinical professor of internal medicine, was the recipient of the 1977 Pfizer Award for Outstanding Clinician in the Field of Diabetes awarded by the American Diabetes Association. Dr. Oppenheimer holds offices in both national and affiliate American Diabetes Association groups.

### WASHINGTON UNIVERSITY

*Walter F. Ballinger II,* M.D., Bixby Professor and head of the Department of Surgery, has resigned his position effective July 1.

Concerning his resignation, Dr. Ballinger said, "I feel that I have accomplished all I can in the development of the Department of Surgery and that I should step down in favor of a new chairman. This will provide for me a long-needed chance to seek new challenges and opportunities."

Dr. Ballinger has served as chairman of the Department of Surgery as well as chief surgeon for Barnes Hospital for more than ten years. "During his leadership, the department has increased in numbers of full-time faculty, in research grants and in quality of teaching," said *Samuel B. Guze,* M.D., vice-chancellor for medical affairs.

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### UNIVERSITY OF MISSOURI-KANSAS CITY

*Dr. Richardson K. Noback,* dean of the School of Medicine, has announced the addition of the following faculty members:

*Lynn I. DeMarco,* M.D. joined the School in January as docent and professor of medicine. Dr. DeMarco received his M.D. degree from the Creighton University School of Medicine in 1959 and completed his residency in internal medicine at the Mayo Clinic in 1963. He was clinical professor of medicine and coordinator, University of South Dakota School of Medicine and consultant, Department of Pediatrics in Allergy/Immunology while in private practice in Sioux Falls, S. D.

*John W. Davis,* D.D.S. has been named associate professor and director of general dentistry at Truman Medical Center. Dr. Davis graduated from the UMKC School of Dentistry in 1969 and holds an appointment of associate professor of hospital dentistry with that School. He also is chairman and director of programs for the Kansas City Coordinating Unit of the National Foundation of Dentistry for the Handicapped.

*Robert P. Dunn,* M.D. has joined the Department of Radiology at Truman Medical Center and is an assistant professor at the School. Dr. Dunn received his M.D. degree from the University of Missouri-Columbia in 1971 and completed his residency at Stanford University Medical Center and was chief resident there from 1974 to 1975.

*Manon G. Manahan,* M.D. joined Truman Medical Center as staff anesthesiologist and assistant professor. Dr. Manahan received her M.D. degree at the University of Santo Tomas, Manila in 1962. After completing her residency training at the New York Hospital-Cornell Medical Center and the Jewish Hospital and Medical Center of Brooklyn, she became an instructor, Department of Anesthesiology, State Universtiy of New York Downstate Medical Center. Dr. Manahan was associate staff anesthesiologist at Mt. St. Joseph's Hospital in Vancouver, B.C., Canada prior to accepting her appointment here.

*Dr. William T. Sirridge,* senior docent, chairman of the Council of Docents and professor of medicine, has been named chairman of the Department of Medicine of Truman Medical Center. Dr. Sirridge joined the School in 1971 as one of the original three docents for the first graduating class. He is a past-president of the Kansas City Society of Internists and the Kansas City Southwest Clinical Society.

# The Council Reports

*Continued from page 73)*

he Nursing School which are supported through a Kellog rant. The intent is that they will operate within the nurse nd medical practice act in the state of Missouri.

### REPORTS OF DISTRICT COUNCILORS

*Districts #1 and #6*—Drs. Hedges and Torontow indi-ated that they did not have a report at this time.

*District #2*—Dr. Walterscheid reported that he attended he meeting of the Missouri Academy of Family Practice in t. Louis. He and Don Wilson also had a meeting with the ike County Medical Society.

*District #3*—Dr. Bradley reported that disciplinary ac-ion had been taken by the St. Louis Medical Society against everal of its members. He also reported on the progress of he merger of St. Louis Medical and St. Louis County Med-cal societies.

*District #4*—Dr. Hetlage reported that a good meeting vas held between Councilor District #4 physicians and leg-slators on December 6. Some of the topics discussed were listribution of physicians, admission of foreign students, mergency medical services, Medicaid, malpractice, the cost f medical care, etc. A strong plea was made by one of the egislators for us to take positive action on strengthening the Board of Healing Arts.

*District #5*—Dr. Ekern reported that they do plan to have a meeting with their legislators after the first of the ear.

Dr. Ekern stated that as a point of interest, no funds are included in the 1979 proposed Federal DHEW Budget for PSRO.

*District #7*—Dr. McCanse reported that Jackson County is in the process of developing a policy statement regarding advertising by physicians. One has just been developed regarding contacts with non-member physicians; proposed members, etc.

Jackson County Medical Society has been asked to approve the pre-hospital treatment protocols for paramedical personnel in regard to emergency medical services.

*District #8*—Dr. German reported that the Greene County Medical Society had received CME approval for a three-year period. The Greene County Medical Society will be meeting with its local legislators in the near future.

Dr. John Budd, AMA President, will be in Springfield on January 12-13, 1978 for the installation of the new President of the Greene County Medical Society, Dr. Ashley. Dr. German invited the Councilors to attend this installation.

*District #9*—Dr. Cooper reported that the Academy of Family Physicians sponsored a program in his District on December 11. A meeting also was held for the M.D.s, D.O.s and lawyers. Many interesting comments were given in regard to Dr. McAlhany's "Action Plan."

*District #10*—Dr. Hansbrough reported that a meeting was held with the legislators from his district and one of the topics discussed was the possibility of establishing "foster" homes for the elderly.

HSA hearings have been set for Centerville and Sikeston.

### CONTINUING MEDICAL EDUCATION

Mr. Ellison asked for Council approval of the following organizations and hospitals for CME accreditation:

| | |
|---|---|
| Missouri Chapter, American College of Surgeons | 1 year |
| St. Francis Hospital, Washington | 2 years |
| North Kansas City Memorial Hospital | 1 year |
| Missouri Baptist Hospital, St. Louis | 3 years |
| Baptist Memorial Hospital, Kansas City | 2 years |
| St. Joseph's Hospital, Kansas City | 1 year |
| Deaconess Hospital, St. Louis | 2 years |
| Kansas City Surgical Society | 1 year |
| Greene County Medical Society | 3 years |
| Freeman Hospital, Joplin | 3 years |

On motion, duly seconded, the Council approved CME accreditation for the foregoing.

### 120TH ANNUAL SESSION

Mr. Ellison reported that the program for the 120th Annual Session is shaping up very well. Twenty-eight scientific sessions will be held, sponsored by 14 specialty organizations and two voluntary health organizations. For the first time this year, the emergency room physicians will be meeting with us.

### LEGISLATIVE REPORT

Dr. Matthews, Chairman of the Legislative Committee, brought the Council up to date on some of the bills that have been pre-filed in the General Assembly. These include the following:

*SB 507—Certificate of Need*—Has been pre-filed and it closely follows the minimum requirements of federal regulations including an exemption for physician offices and equipment. A "Hospital Cost Containment Bill" has been introduced which would regulate capital expenditures. The Legislative Committee recommends qualified support of SB 507 with amendments.

*Optometrists and Drugs*—MSMA is on record as opposing the use of drugs by optometrists (Resolution #12, A-1977). Another bill, SB 518 has been introduced which would authorize some optometrists to use "topically applied diagnostic drugs." The Legislative Committee recommends that MSMA oppose SB 518.

*Licensing of Allied Health*—Once again, several licensing bills have been introduced. These include SB 535, which would license Physician Assistants; HB 970, which is a similar bill; a bill that would license physical therapy assistants under the Board of Healing Arts; HB 1468, which would license Social Workers. We also expect bills to be introduced which would license home health-care agencies and "immediate care specialists." As a point of information, the MSMA is currently conducting a study on the use of physician assistants. The Legislative Committee voted to oppose the licensing of all paramedical personnel at this time.

*Minor's Consent*—Last year's Minor's Consent bill, which passed the Legislature, is believed by many to be unconstitutional as it relates to abortion. SB 597 would amend that act on the abortion subject only. The Legislative Committee recommends no position at this time.

On motion, duly seconded, the above four items were accepted by the Council.

*Licensing Boards*—SB 672, which would place a lay person on each of the professional licensing boards, has been introduced. SB 835 would establish a single operating fund for all of the licensing boards under the Department of Consumer Affairs, Regulation and Licensing. Also, legislation has been introduced which would make Chapter 334 conform to the present practice in testing and licensing medical graduates under the Board of Healing Arts. Dr. Matthews stated that the Legislative Committee felt that the lay person on the Board of Healing Arts should be an additional person. The Legislative Committee feels that the language in Chapter 334 should be changed to make Chapter 334 conform with the present examination being used by the Board.

*Generic Drugs*—There are several bills introduced which would allow pharmacists to substitute generic drugs with varying requirements of physician approval. The MSMA policy opposes governmental interference in medicine through mandated generic prescribing. The Legislative Committee recommends that we look at these individually before making any decision regarding them.

*Laetrile*—Several bills have been introduced authorizing the sale of the substance laetrile, in Missouri. The Legislative Committee recommends that the MSMA opposes these measures since "Laetrile is a substance that has no proven, beneficial value as a drug."

*Medical Education*—HB 1044 provides funds for establishing Family Practice Residencies. Two bills have been introduced. They are SB 805 and HB 884 which would establish a medical student loan program in the state. The MSMA is working with legislators on a bill that would aid in establishing more primary care residencies with emphasis on rural areas of the state.

It was the recommendation of the Legislative Committee that the MSMA supports any measure that would increase residency programs in the state of Missouri with strong support to the Family Practice legislation, HB 1044.

On motion, duly seconded, the above four items were accepted by the Council.

*Medicaid*—New bills which would alter the Medicaid program are SB 610, which would allow Medicaid providers an opportunity to have a hearing before the Division of Family Services on claims; an open formulary bill; and a bill which would allow for a physician fee for preparation of laboratory specimens. The MSMA is committed to seek adequate funding for the physician services involved in the program.

*Malpractice*—The MSMA is again supporting four bills dealing with the malpractice issue. *HB 1144* is the Expert Witness bill; *SB 533*, the Collateral Source bill; *SB 819*, the Structured Award bill; and *HB 1280*, which is a "Good Samaritan" bill MSMA has supported in the past.

*Sudden Infant Death Syndrome*—SB 765 and a House Bill would permit autopsies at state expense on infants who are suspected victims of SIDS. The MSMA recently passed a resolution favoring such action.

*Chiropractors*—SB 699 would allow chiropractors to use "adjunctive therapy" as defined by the Board of Chiropractic Examiners and SB 692 which would provide for payment for chiropractic services under Medicaid. The Legislative Committee recommends opposition to these two bills.

On motion, duly seconded, the above four items were accepted by the Council.

*Death Legislation*—Definition of Death bills have been introduced in both the House and the Senate—SB 600 and HB 1020. The MSMA supported this bill last year. The AMA recently changed its position on it. A bill has been introduced called the "Right to Die" bill. The MSMA has not taken a position on this bill in the previous session. The MSMA will again support the definition of death bills and will take no position on the "Right to Die" bill.

*Rubella*—The MSMA has been asked to support a bill that would require rubella testing at the time of applying for a marriage license. This bill has not as yet been filed. The Legislative Committee has agreed to support such a bill.

*Mental Health*—A bill has been introduced that would call for the revision of the commitment law for mental patients. This is a revision of the bill introduced last year. The Legislative Committee recommends no position at the present time. The MSMA is on record as favoring a change in the composition of the Mental Health Commission providing for more physician representation. The MSMA drafted a bill, but the Psychiatric Association recommends that the MSMA not introduce it at this time.

*Advertising*—Two bills, pre-filed, would establish rules for professional advertising. The Legislative Committee recommends these bills be studied individually.

On motion, duly seconded, the above four items were accepted by the Council.

Dr. Matthews encouraged the Council members to write to their individual Senators and Representatives and request copies of bills in which they are interested. This will at least let the legislators know of your interest. Chairman McCanse thanked Dr. Matthews for the splendid Legislative Report and commended him for a job well done.

### 1978 INTERIM SESSION

The 1978 Interim Session of the MSMA will be held in Cape Girardeau on November 4 and 5, 1978 at the Ramada Inn.

### NEXT COUNCIL MEETING

The next Council Meeting will be held at the Hilton Inn in Columbia on February 3 and 4, 1978.

## School Immunization Success

Efforts to push the immunization level of Missouri school children close to 100% have been highly successful as a result of cooperation among education leaders, private physicians and public health officials. Current reports show that 461,279 shots were administered during the six-month period of June-November, 1977. This represents a 422% increase in the number of shots given during the same part of 1976. (These figures involve only the vaccine distributed through public health offices and do not include the thousands of shots administered by private physicians. An earlier sampling of pediatricians indicated comparable increases in immunization activity in physicians' offices throughout the state.)

Emphasis now shifts to other related concerns, including adjustment of the main immunization effort target to the pre-school age. Immunization officials are mapping plans to alert parents to the dangers of waiting until school entrance to protect youngsters against childhood diseases.

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FAMILY PRACTICE—Group or solo practice in town of 10,000, service area 18,500. Located 30 miles from Kansas City, Mo. New full service, 48-bed hospital. Guaranteed salary and other benefits. Contact Don Black, Administrator, Excelsior Springs City Hospital, 1700 Rainbow Drive, Excelsior Springs, Missouri 64024. 816-637-6081.

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PRIMARY CARE AND SURGICAL SPECIALISTS—Are invited to consider Missouri group practice opportunities with Health Resources. Urban, small town and or rural locations. Excellent benefits. Please send a complete CV in confidence to: Dr. Ronald Hammerle, Health Resources, Ltd., 2700 Hospital Drive, Box 12621, Kansas City, MO 64116.

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UNIVERSITY HEALTH SERVICE—Southwest Missouri State University seeking additional full-time physician (FP or GP). New clinic facility. 13,000 students and growing. Excellent fringe benefits, outdoor recreation and time to enjoy plus mild climate. Salary competitive. Write to R. L. Bartley, M.D., Director, Taylor Health Center, Southwest Missouri State University, Springfield, Mo. 65802.

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MSMA MEMBERS—Have you moved recently? Please send any changes of address to MISSOURI MEDICINE, 113 Madison, Jefferson City, Mo. 65101. We need your help in keeping our mailing list up to date. You are our best source of information.

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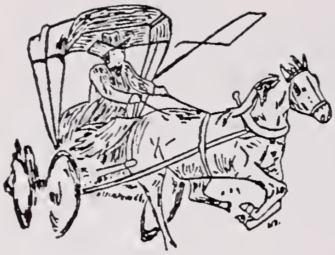

# Missouri Medicine in Review

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

The life of Dr. Oliver Wendell Holmes, scientist, physician, poet and humorist, will be broadcast by Cavalcade of America at 7 PM Central Standard Time, over the national network of the Columbia Broadcasting System.

The Trudeau Club of St. Louis met on January 6 with the following members of the staff of Desloge Hospital Chest Service furnishing the program: Drs. H. I. Spector, J. L. Mudd, L. G. McCutchen, Sigmund S. Tashma and F. G. Gillik.

The first Medical Alumni Quarterly of Washington University School of Medicine was distributed recently. Dr. Robert J. Terry, St. Louis, is editor of the publication. The first issue includes historical, scientific and administrative information and news of the school and its personnel.

The Missouri Social Hygiene Association elected the following St. Louis physicians to offices at a meeting on January 10; Drs. Richard S. Weiss, president; Martin F. Engman, honorary vice-president; Paul J. Zentay, first vice-president; F. H. Ewerhardt, second vice-president; A. H. Conrad, secretary-treasurer; and Katharine Bain, G. O. Broun, B. F. May and Llewellyn Sale, members of the Board of Directors. Dr. Harriet S. Cory is executive secretary.

## TWENTY-FIVE YEARS AGO

George F. Lull, M.D., Secretary and General Manager of the AMA, writes:

"More than 50 years ago, Sir William Osler counseled, 'Let the doctor pay heed to his ethics and his reputation will take care of itself.' These words mean far more today than they did in Osler's time for, on every hand, the medical profession is under fire by those who would destroy its roots."

A healthy "chaw of Brown Mule" is most essential for the expert wood carver, insists Peter Siegel of Smithton. As a full-flegded member of South Morgan County (Mo.) Spit and Whittle Club, he has learned to check a cud for three hours without spitting and has "whittled" objets d'art which have earned for him blue ribbons, medals and silver cups galore. Thus, his hobby has included the earthy and the ethereal." I am firmly convinced that everyone, particularly doctors, should have at least two hobbies—one to pursue when they are young and vigorous and another which requires little physical effort. The latter may be carried on in later years. The most pitiful, heartbreaking sight is to see a physician retire from his practice and then just dry up, to rapidly withe away because he never took the time to interest himself or learn anything but the practice of medicine."

## TEN YEARS AGO

George J. Lytton, M.D., Kansas City, writes i *The Greater Kansas City Medical Bulletin:*

"Do we get so panic-stricken at the thought o government interference that we become ineffectiv and desert the field of battle without a fight? I we do this (and sometimes we do), the field is lef open for the social planners who then complai that they have no cooperation from the physician in the planning of medical services. Do we have dissident minority and a complacent majority wh are content to let the autocrats of the Medica Society fight the battles? At times, I am forced t this conclusion because, in my experience, the Medi cal Society has never done anything right yet.

"If we let a dissident minority speak for us an never attempt to set the record straight, we shal continue to be the victims of a bad public image If we continue to desert the field of battle whil the social planners rush headlong into the void, w shall continue to suffer both in and out of legis lative halls."

Dr. Robert H. Felix, dean of St. Louis Universit School of Medicine, was elected to the Executiv Council of the Association of Medical Colleges a the recent annual meeting held in New York. Hi term is for three years.

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# For recurrent attacks of urinary tract infection in women

# Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

## Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
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- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms:** *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

**Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.**

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

**Contraindications:** Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

**Warnings:** Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

**Precautions:** Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

**Adverse Reactions:** All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

**Dosage: Not recommended for infants less than two months of age.**

*Urinary Tract Infections:* Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

*Children two months of age or older*

| Weight | | Dose—every 12 hours | |
|---|---|---|---|
| lbs | kgs | Teaspoonfuls | Tablets |
| 20 | 9 | 1 teasp. (5 ml) | ½ tablet |
| 40 | 18 | 2 teasp. (10 ml) | 1 tablet |
| 60 | 27 | 3 teasp. (15 ml) | 1½ tablets |
| 80 | 36 | 4 teasp. (20 ml) | 2 tablets or 1 DS tablet |

For patients with renal impairment:

| Creatinine Clearance (ml/min) | Recommended Dosage Regimen |
|---|---|
| Above 30 | Usual standard regimen |
| 15-30 | ½ the usual regimen |
| Below 15 | Use not recommended |

*Pneumocystis carinii pneumonitis:* Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

**Supplied:** *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension*, containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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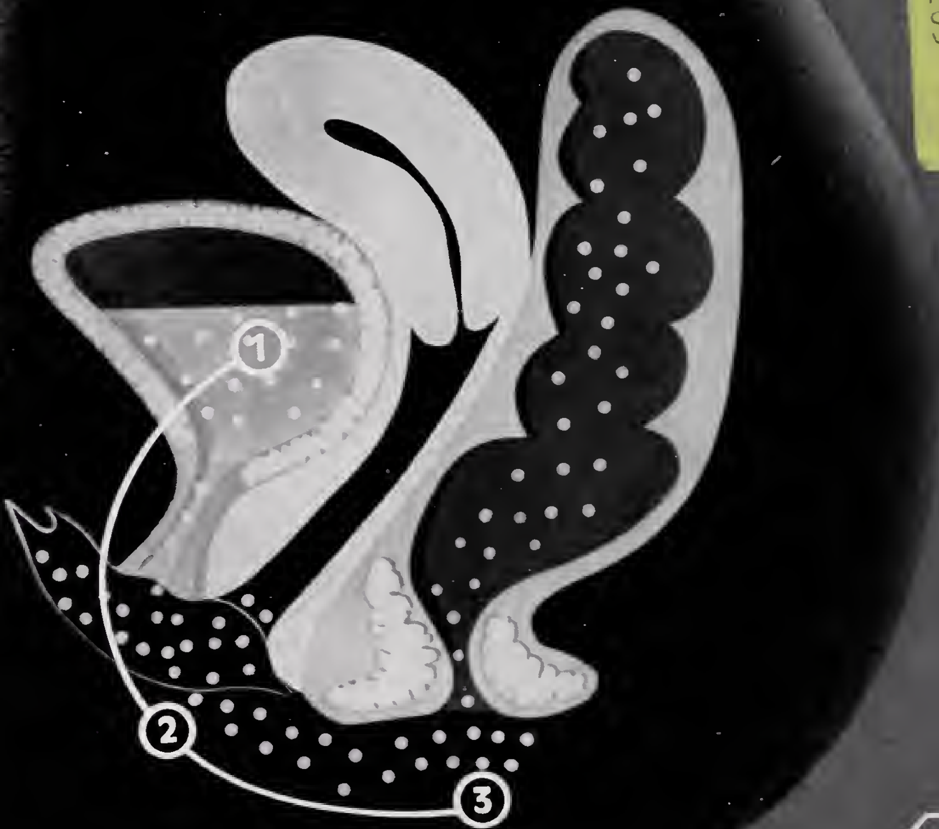

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# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

**MARCH, 1978**

VOLUME 75, NUMBER 3

MDS

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**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts an liver function tests advisable during protracted therapy.

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# Confident Clinical Office Management

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The University of Chicago/The Pritzker School of Medicine

**PARTICIPANTS:**

JAN FAWCETT, M.D.
Rush-Presbyterian/St. Luke's Medical Center, Chicago, Illinois
ROBERT W. GIBSON, M.D.
Sheppard & Enoch Pratt Hospital, Towson, Maryland
LEO E. HOLLISTER, M.D.
Stanford University School of Medicine, Palo Alto, California
HEINZ E. LEHMANN, M.D.
McGill University Faculty of Medicine, Montreal, Canada
JOSEPH J. SCHILDKRAUT, M.D.
Harvard Medical School, Boston, Massachusetts
ROGERS J. SMITH, M.D.
University of Oregon Health Science Center & private practice, Portland, Oregon
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- This Symposium focuses on a practical approach to recognizing and diagnosing depression — an approach which can be integrated into the physician's everyday clinical practice.
- Special emphasis is given to the treatment aspects of depression.
- This program also develops a fuller understanding and appreciation of the importance of the proper management of depression.

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SEATTLE
WASHINGTON, D.C.

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1:00 p.m. Pacific
2:00 p.m. Mountain
3:00 p.m. Central
4:00 p.m. Eastern

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# Missouri Medicine

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### Preliminary Program
### 120th Annual Session

## MISSOURI STATE MEDICAL ASSOCIATION

**Crown Center Hotel, Kansas City** **April 13-16, 1978**

### Thursday, April 13

11:00 AM Registration of Delegates.

1:30 PM House of Delegates Meeting, opening session.

3:00 PM Reference Committee Meetings.

6:30 PM Missouri State Surgical Society Dinner and Board Meeting.

6:30 PM Cash Bar and Dinner, American Medical Women's Association.

### Friday, April 14

8:00 AM Registration.

8:30 AM Missouri University Alumni Board of Governors Breakfast Meeting.

9:00 AM General Session—*PSRO.*
Introductions: Howard J. McAlhany, M.D., Springfield, MSMA President.
Speakers: Robert B. Hunter, M.D., Sedro Woolley, Wash., Chairman, AMA Board of Trustees.
Michael J. Goran, M.D., Rockville, Md., Director, Acting Associate Administrator for Health Standards and Quality, Health Care Financing Administration.

9:00 AM *Important Topics in Infectious Diseases.*
*Host Resistance, the Forgotten Hero,* Daniel J. Stechschulte, M.D., Professor of Medicine, Director, Division of Allergy, Clinical Immunology and Rheumatology, University of Kansas Medical Center, Kansas City, Kan.
Moderator: Donald Youll, M.D., Kansas City, President, Missouri State Allergy Association.
*Antibiotics—When, Why and How Much,* E. Dale Everett, M.D., Professor of Medicine, Chief, Division of Infectious Diseases, University of Missouri-Columbia.
Moderator: Daniel Hurst, M.D., Columbia, President, Missouri Thoracic Society.
*The Annual Charles Brasher Lecture: Tuberculosis—State of the Art,* Ray G. Cowley, M.D., Director, Missouri State Chest Hospital, Clinical Professor of Medicine, University of Missouri-Columbia.
Moderator: Daniel Hurst, M.D., Columbia.
Co-Sponsored by the Missouri State Allergy Association, Missouri Thoracic Society and the Missouri Chapter, American Academy of Pediatrics.

9:30 AM *Training Session on Cardiac Pulmonary Resusitation.*
Sponsored by the American Heart Association, Missouri Affiliate.

10:30 AM **Intermission to View Exhibits.**

11:00 AM *Improved Survival With Combination Therapy for Small Cell Lung Cancer,* Ben J. Throne, M.D., Kansas City.
*Carcinogens in Our Life—Fact or Fiction,* Donald R. German, M.D., Kansas City.
Sponsored by the American Cancer Society, Missouri Division, Inc.

11:00 AM *The Medical and Surgical Management of the Rheumatoid Arthritic Patient.*
Speakers: Carlo Caciolo, M.D., St. Louis.
Robert Karsh, M.D., St. Louis.
Paul Manske, M.D., St. Louis.
Moderator: Robert E. Kuhlman, M.D., St. Louis.
Sponsored by the Missouri Orthopaedic Association.

11:00 AM *Clinical Interpretation of Microbiology Results—1978 Update,* C. Terrence Dolan, M.D., Kansas City.
Moderator: Thomas J. Fritzlen, M.D., Kansas City.
(Discussion of significance of actual results from various slides and interpretation of sensitivity testing with the presentation directed to the practitioner. Educational material will be handed out.)
Sponsored by the Missouri Society of Pathologists.

11:00 AM *Fluid and Electrolyte Problems of the Surgical Patient,* Ralph Hall, M.D., Kansas City.
Sponsored by the Missouri State Surgical Society.

12:30 PM Missouri University Alumni Luncheon.
Missouri Thoracic Society Luncheon.

1:00 PM *Training Session on Cardiac Pulmonary Resusitation* (Continued).
Sponsored by the American Heart Association, Missouri affiliate.

1:00 PM *Pharmacological and Mechanical Cardiac Pacing in the Emergency Department.*
Speakers: Robert Ellenbaas, Pharm.D., Kansas City.
Joe Waeckerle, M.D., Kansas City.

*Mobile Intensive Care Unit,* Allen Klippel, M.D., Omaha, Neb.
*Systems and Satellites,* R. R. Hannas, M.D., Kansas City.
Moderator: R. R. Hannas, M.D., Kansas City.
Sponsored by the Tri-State Conference on Emergency Room Physicians.

1:00 PM *Impaired Physicians and Their Family,* H. James Lurie, M.D., Department of Psychiatry, University of Washington School of Medicine, Seattle, Wash.
Moderator: William A. Kelly, M.D., St. Louis.
Sponsored by Missouri Psychiatric Association and the MSMA Auxiliary.

2:00 PM *Important Topics in Infectious Diseases* (Continued).
*Viral Diseases of Special Interest,* Lloyd C. Olson, M.D., Associate Professor of Pediatrics, University of Missouri-Kansas City.
Moderator: Donald Youll, M.D., Kansas City.
*Diagnosis and Treatment of Childhood Pneumonias,* Michael Cooperstock, M.D., Assistant Professor of Child Health, University of Missouri-Columbia.
Moderator: Donald Thurston, M.D., Chairman, Missouri Division, American Academy of Pediatrics.
Sponsored by the Missouri State Allergy Association, Missouri Thoracic Society and the Missouri Chapter, American Academy of Pediatrics.

2:00 PM *The Practical, Clinical and Usefulness of Diagnostic Echocardiography,* Richard E. Kerber, M.D., Associate Professor of Medicine and Director of Cardiovascular Non-Invasive Diagnostic Laboratory, University of Iowa College of Medicine, Iowa City, Ia.
*Cardiovascular Nuclear Medicine,* Kenneth A. McKusick, M.D., Clinical Director of Nuclear Medicine, Massachusetts General Hospital, Boston, Mass.
Sponsored by American Heart Association, Missouri affiliate.

2:00 PM *Interpretation of Blood Gases and Ventilators in the Surgical Patient,* Hugh Mathewson, M.D., Kansas City, Kan.
Sponsored by the Missouri State Surgical Society.

3:30 PM Intermission to View Exhibits.
3:30 PM Missouri State Surgical Society Business Meeting.
3:30 PM Missouri State Medical Foundation Board Meeting.
4:00 PM House of Delegates, second session.
4:30 PM Missouri State Allergy Association Business Meeting.
4:30 PM Missouri Thoracic Society Business Meeting.
6:00 PM Reference Committee Meetings.
6:30 PM Dinner Meetings: Missouri Society of Pathologists.
Missouri Psychiatric Association.
Missouri State Surgical Society.
7:00 PM Dinner Meeting, Missouri State Allergy Association.

### Saturday, April 15

7:30 AM MSMA Auxiliary Public Affairs Breakfast.
Speaker: The Honorable E. Thomas Coleman, Washington, D. C., Congressman, Missouri's 6th District.

8:00 AM Registration.

9:00 AM *Discuss the Issues with Your AMA Delegates.* (Missouri's AMA Delegates and Alternates will be available for an open forum-type discussion.)

9:00 AM *Herpes Simplex Virus Ocular Infection, Antiviral Topical Therapy,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, Pa.
Moderator: Larry Piebenga, M.D., Kansas City.
Sponsored by Missouri Ophthalmological Society.

9:00 AM *Stress and Non-Stress Fetal Monitoring,* Barry S. Schifrin, M.D., Los Angeles, Calif.
*Ultra-Sonography in OB-GYN,* Arnold Lee Medearis, M.D., Kansas City.
Moderator: James P. Youngblood, M.D., Kansas City.
Sponsored by the Missouri OB-GYN Society and the American College of Obstetrics and Gynecologists.

8:45 AM *Cardiac Rehabilitation,* Frederic Kottke, M.D., Chairman, Physical Medicine and Rehabilitation, University of Minnesota, Minneapolis, Minn.
*Geriatric Fitness Exercise Programs,* Wayne Osness, Ph.D.
*The Management of the Geriatric and Middle-Aged Amputee,* Ken Hu, M.D., St. Louis.
Moderator: Franz U. Steinberg, M.D., St. Louis.
Sponsored by Physical Medicine and Rehabilitation.

9:00 AM *Respiratory Problems in the Surgical Patient,* John Collins, M.D., Chairman, Department of Surgery, Stanford University, Stanford, Calif.
Sponsored by the Missouri State Surgical Society.

9:00 AM *Brain Stem Audiometry*
*Current Status Cochlear Implants.*
*Ossicular Problems.*

*Experience with the Ossicular Prosthesis.*
Speaker: Derald E. Brackmann, M.D., Otologic Medical Group, Ear Research Institution, Los Angeles, Calif.
Sponsored by the Missouri Ear, Nose and Throat Association.

10:30 AM *Diagnosis of Malignant Melanoma,* Loren Golitz, M.D., Denver, Colo.
Moderator: Larry E. Millikan, M.D., Columbia.
Sponsored by the Missouri Dermatological Society.

10:30 AM *Unusual Emergency Cases,* Edward Morgan, M.D., St. Louis.
*Asthma in Emergency Department,* Robert Ellenbaas, Pharm. D., Kansas City and Joe Waeckerle, M.D., Kansas City.
Moderator: Edward Morgan, M.D., St. Louis.
Sponsored by the Tri-State Conference on Emergency Room Physicians.

10:30 AM **Intermission to View Exhibits.**

11:00 AM *Special Family Problems, Parents and Children,* Beverley T. Mead, M.D., Professor and Chairman, Department of Psychiatry, Creighton University, Omaha, Neb.
Moderator: William C. Allen, M.D., Columbia.
Sponsored by the Missouri Academy of Family Physicians.

11:00 AM *Pitfalls in Identifying "High Risk Pregnancy,"* Robert M. Kretzschmar, M.D., Iowa City, Ia.
*Intrapartum Monitoring,* Barry S. Schifrin, M.D., Los Angeles, Calif.
Panel Participants: Robert M. Kretzschmar, M.D.
Barry S. Schifrin, M.D.
Arnold Lee Medearis, M.D., Kansas City.
Moderator: James P. Youngblood, M.D., Kansas City.
Sponsored by the Missouri OB-GYN Society and the American College of Obstetrics and Gynecologists.

11:00 AM *Continuing Medical Education and the Missouri Surgeon.*
Moderator: Boyd Terry, M.D., Columbia.
Sponsored by the Missouri State Surgical Society.

11:00 AM Speakers: *Percutaneous Cordotomy,* August A. Geise, M.D., St. Louis.
*Radiofrequency Trigeminal Rhizotomy,* George Mendelsohn, M.D., St. Louis.
*Hypophysectomy for Cancer Pain,* Charles A. Clough, M.D., Kansas City.
*The Future in Pain Management,* Clark Watts, M.D., Columbia.
Moderator: C. Keith Whittaker, M.D., Kansas City.
Sponsored by the Missouri Society of Neurosurgeons.

11:00 AM *Corneal Edema After Cataract Surgery and Intraocular Lens Placement.* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, Pa.
Moderator: Larry Piebenga, M.D., Kansas City.
Sponsored by the Missouri Ophthalmological Society.

11:00 AM Panel Discussion on *Application of the Total Hip Replacement for Salvage of the Previously Operated Hip.*
Panel Participants: Carlo Caciolo, M.D., St. Louis.
Robert Karsh, M.D., St. Louis.
Robert E. Kuhlman, M.D., St. Louis.
Paul Manske, M.D., St. Louis.
Moderator: Robert E. Kuhlman, M.D., St. Louis.
Sponsored by the Missouri Orthopaedic Association.

12:00 Noon Missouri Ophthalmological Society, Inc. Luncheon.

12:30 PM **Fifty-Year Club Luncheon.**
Missouri Society of Neurosurgeons Luncheon.
Missouri OB-GYN Society and American College of Obstetricians and Gynecologists Luncheon.
Physical Medicine and Rehabilitation Luncheon.

1:30 PM *Contrast Agents in Urography,* William H. McAlister, M.D., Professor of Radiology, Mallinckrodt Institute of Radiology, St. Louis.
*Radiation Therapy of Lung Cancer,* MacDonald B. Logie, M.D., Assistant Professor of Radiology, Mallinckrodt Institute of Radiology, St. Louis.
*Noninvasive Studies of the Heart Related to Isotopes,* Donald R. Germann, M.D., Professor of Radiology, St. Luke's Hospital, Kansas City.
Moderator: Menzie H. Brown, M.D., Kansas City.
Sponsored by the Missouri Radiological Society.

1:30 PM Clinical Pathological Conference.
Speaker: Loren Golitz, M.D., Chief of Dermatology, Denver General Hospital, Denver, Colo.
Moderator: Gary Dyer, M.D., St. Joseph.
Followed by Panel Discussion on *"How I Treat Common Dermatoses Kodachrome."*
Panel Participants: Gary Dyer, M.D., St. Joseph.
Kenneth Koldys, M.D., Cape Girardeau.
Bruce Hookerman, M.D., St. Louis.
Larry E. Millikan, M.D., Columbia.

Moderator: Larry E. Millikan, M.D., Columbia.
Sponsored by the Missouri Dermatological Society.
2:00 PM *Special Family Problems, Adult Members.*
Beverley T. Mead, M.D., Professor and Chairman, Department of Psychiatry, Creighton University, Omaha, Neb.
Moderator: William C. Allen, M.D., Columbia.
Sponsored by the Missouri Academy of Family Physicians.
2:00 PM *Current Concepts of Recurrent Corneal Erosion,* Peter Laibson, M.D., Wills Eye Hospital, Philadelphia, PA.
Moderator: Larry Piebenga, M.D., Kansas City.
Sponsored by the Missouri Ophthalmological Society, Inc.
3:30 PM **Intermission to View Exhibits.**
5:00 PM Missouri University Medical Alumni Cocktail Party.
St. Louis University Medical Alumni Cocktail Party.
Washington University Medical Alumni Cocktail Party.
6:30 PM Cocktails and Dinner: Missouri Dermatological Society. Radisson-Muehlebach Hotel.
6:30 PM **Social Hour for Those Attending Annual Banquet.**
7:15 PM **Annual Banquet in Honor of MSMA Past-Presidents.**

Sunday, April 17

7:30 AM **House of Delegates Meeting,** Breakfast and Final Session.
Missouri Dermatological Meeting, UMKC Medical Center.

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### Preliminary Program—53rd Annual Convention

## MSMA AUXILIARY

### Crown Center Hotel, Kansas City April 13-15, 1978

Thursday, April 13

10:00 AM-4:00 PM Registration and Information. Roanoke Foyer.
1:30 PM Auxiliary Report to the MSMA House of Delegates.
4:00 PM Pre-Convention Board Meeting. Westport Room.
6:00 PM Dutch Treat Dinner and Play, "The Latest Mrs. Adams." Waldo Astoria Dinner Theater. Round-trip bus from Crown Center. $13.

Friday, April 14

7:30 AM MSMA Complimentary Coffee and Rolls. Century Foyer.
8:00 AM-11:45 AM Registration and Information. Roanoke Foyer.
8:30 AM General Assembly and Business Meeting. Liberty Room.
Guest: Mrs. Manuel A. Bergnes, Norristown, Pa., President-Elect of the American Medical Association Auxiliary.
12:00 NOON Awards Luncheon, Liberty Room.
Speaker: Mrs. Manuel A. Bergnes, President-Elect of the AMA Auxiliary.
1:00 PM-4:00 PM Seminar: *Impaired Physicians and Their Families.* Centennial "B" Room.
H. J. Lurie, M.D., Department of Psychiatry, University of Washington School of Medicine, Seattle, Wash.
Sponsored by the MSMA Auxiliary and the Missouri Psychiatric Association.
6:00 PM Reception Honoring MSMA Auxiliary President. Centennial Foyer.
7:30 PM Dutch Treat Dinner.

Saturday, April 15

7:30 AM Public Affairs Breakfast.
Speaker: E. Thomas Coleman, Kansas City, U. S. Representative from the Sixth District.
8:45 AM General Assembly and Workshop. Century Room.
12:00 NOON Installation Luncheon. Century Room.
Guests of Honor: Howard J. McAlhany, M.D., President of the Missouri State Medical Association.
John N. Martin, M.D., President-Elect of the Missouri State Medical Association.
MSMA Advisory Council.

MSMA

# NEWS ROUND-UP

March, 1978

# Annual Session schedule set

Many topics of importance to Missouri physicians will be discussed at the 120th Annual Session of the Missouri State Medical Association, April 13-16, 1978, at the Crown Center Hotel in Kansas City. In addition, an outstanding scientific program will be offered.

Robert B. Hunter, M.D., Chairman of the AMA Board of Trustees, and Michael J. Goran, M.D., Acting Associate Administrator for Health Standards and Quality, Health Care Financing Administration, will be the featured speakers at the Opening General Session of the convention. They will debate PSRO (Professional Standards Review Organization).

Twelve resolutions have been submitted so far for the Delegate's Handbook. These resolutions deal with a variety of subjects, including mandatory AMA membership, membership representation in the MSMA, second opinions in surgery and expert medical witnesses.

Discussion on these topics will begin at the opening session of the House of Delegates at 1:30 p.m., Thursday, April 13. Reference Committees will meet immediately following House adjournment. The second meeting of the House will be at 4 p.m., Friday, and the final session at 7:30 a.m., Sunday.

**Continued on Next Page**

## Schedule of Events

### Thursday, April 13

| | |
|---|---|
| 11:00 a.m. | Registration of Delegates, **Century Foyer** |
| 1:30 p.m. | House of Delegates Meeting, Opening Session, **Century Room** |
| 3:00 p.m. | Reference Committee Meetings |

### Friday, April 14

| | |
|---|---|
| 8:00 a.m. | Registration, **Century Foyer** |
| 8:00 a.m. | Exhibits Open |
| 9:00 a.m. | General Session — "PSRO," **Century Room**<br>Introduction: *Howard J. McAlhany, M.D.*, Springfield, MSMA President<br>Speakers: *Robert B. Hunter, M.D.*, Sedro Woolley Wash., Chairman, AMA Board of Trustees<br>*Michael J. Goran, M.D.*, Rockville, Md., Acting Associate Administrator for Health Standards and Quality, Health Care Financing Administration |
| 9:00 a.m. | Scientific Sessions Begin |
| 3:30 p.m. | Missouri State Medical Foundation Board Meeting, **Century Room** |
| 4:00 p.m. | House of Delegates, Second Session, **Century Room** |
| 6:00 p.m. | Reference Committee Meetings |

### Saturday, April 15

| | |
|---|---|
| 7:30 a.m. | MSMA Auxiliary Public Affairs Breakfast, **Century Room**<br>Speaker: *The Honorable E. Thomas Coleman*, Washington, D.C., Congressman, Missouri's 6th District |
| 8:00 a.m. | Registration, **Century Foyer** |
| 8:00 a.m. | Exhibits Open |
| 9:00 a.m. | "Discuss the Issues with Your AMA Delegates," **Congressional Board Room** |
| 9:00 a.m. | Scientific Sessions Begin |
| 12:30 p.m. | Fifty-Year Club Luncheon, **Independence Room** |
| 6:30 p.m. | Social Hour for Those Attending Annual Banquet, **Century Foyer** |
| 7:15 p.m. | Annual Banquet in Honor of MSMA Past-Presidents, **Century Room** |

### Sunday, April 16

| | |
|---|---|
| 7:30 a.m. | House of Delegates Breakfast and Final Session, **Century Room** |

## Annual Session
### Continued

Along with the actions the House considers, 28 scientific sessions will be sponsored by 14 medical specialties and two voluntary health organizations. This is the largest number of scientific programs the MSMA has ever had. For the first time, the Emergency Room Physicians will meet in conjunction with the Annual Session. And for the first time in many years, the Missouri Academy of Family Physicians, the Missouri Society of Neurosurgeons and the Missouri Orthopaedic Association will sponsor scientific programs at an MSMA Annual Session.

The scientific program is approved for 14 hours Category I Continuing Medical Education credit by the MSMA. It is also acceptable for three Prescribed and 11 Elective hours by the American Academy of Family Physicians.

There will also be 33 Technical Exhibits, giving physicians a chance to see and discuss new equipment and drugs with industry representatives. MSMA members can register for valuable attendance prizes to be awarded daily.

Again this year, Missouri's AMA Delegates and Alternates will hold an open forum meeting from 9 a.m. to 10:30 a.m., Saturday.

The MSMA Auxiliary will host several activities at this Annual Session. At their Public Affairs Breakfast at 7:30 a.m., Saturday, Congressman E. Thomas Coleman, representing Missouri's Sixth District, will be the speaker. In addition, the Auxiliary is co-sponsoring a scientific session on the impaired physician.

The Auxiliary invites **all** physicians' spouses to participate in their activities. Non-members may obtain more information at the Auxiliary Registration Desk in the Hotel.

The annual Past Presidents' Banquet will be held Saturday evening. Tickets for this Banquet, the 50-Year Club Luncheon and the Breakfast Meeting of the House of Delegates will be available at the MSMA Registration Desk.

A Preliminary Program and a hotel reservation card have been mailed to each MSMA member. The Program contains a schedule of the scientific sessions which will be held all day Friday and Saturday.

## *Speakers highlight convention*

*Dr. Hunter*

Several interesting and knowledgeable speakers will highlight this year's Annual Session.

At the Opening General Session on Friday, April 14, Robert B. Hunter, M.D., chairman of the AMA Board of Trustees, and Michael J. Goran, M.D., Acting Associate Administrator for Health Standards and Quality, Health Care Financing Administration, will discuss PSRO.

Dr. Hunter has been a member of the AMA Board since 1971 and chairman since 1977. As a member of the National Professional Standards Review Organizations Council and as a past member of the AMA's PSRO Advisory Committee, Dr. Hunter is eminently qualified to speak on PSRO.

Dr. Hunter, who is in general practice and general surgery in Sedro Woolley, Wash., was also a past President of the Washington State Medical Association and a Delegate to the AMA House from 1964 to 1971.

Dr. Goran, who has worked for the Department of Health, Education and Welfare since 1968, became the Associate Administrator in May, 1977. He is currently responsible for the following four programs authorized by the Social Security Act: 1) Health Standards and Certification under Medicare and Medicaid, 2) Professional Standards Review Organization Program, 3) End-Stage Renal Disease Program and 4) Utilization Control and Utilization Review Requirements.

At the MSMA Auxiliary Public Affairs Breakfast Saturday morning at 7:30, the Honorable E. Thomas Coleman will be the featured speaker.

Mr. Coleman, a native of Kansas City, has represented Missouri's sixth District in the United States House of Representatives since 1972. He serves on the House Agriculture Committee, the District of Columbia Committee and the House Republican Research Committee's Senior Citizens Task Force.

## MSMA House to debate 12 resolutions

Twelve resolutions have been introduced to date for consideration by the MSMA House of Delegates at the Annual Session.

All resolutions, plus committee and commission reports and Council minutes, will be referred to Reference Committees for debate. Following testimony on the resolutions, the Committees will submit reports back to the House.

All MSMA members are invited to attend sessions of the House and to testify before Reference Committees. At the opening session of the House, an agenda for each Reference Committee will be available.

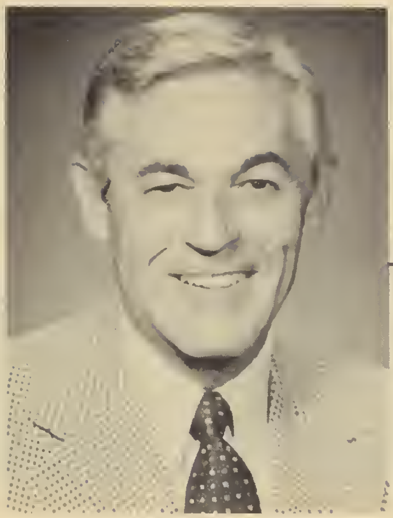
According to MSMA Bylaws, any resolution not introduced in the Delegate's Handbook must be made available to the House of Delegates 24 hours before the session in which it is to be introduced. At least 200 copies of the resolution or funding for the same must be supplied by the individual or society introducing the resolution.

At the second session of the House, the same procedure must be followed, but such introduction is allowed only if approved by two-thirds of the delegates voting. At the final session of the House, it requires a unanimous vote of delegates to allow introduction.

The resolutions submitted to date are:

No. 1 — Voting for AMA Delegates
No. 2 — Computerized Donor Registry
No. 3 — Second Opinion Consultations
No. 4 — Determining Payment of Hospital Bills
No. 5 — Weighted Voting for AMA Delegates
No. 6 — Membership Representation
No. 7 — Definition of MSMA Council
No. 8 — Responsibilities of a Medical Witness
No. 9 — Uniform AMA Membership
No. 10 — Plan for Equitable Representation
No. 11 — Funding for Opthalmology Resident Training Programs
No. 12 — Component Society Representation in MSMA House

**Howard J. McAlhany, M.D.**
*President*



**John N. Martin, M.D.**
*President-Elect*

# Dr. Martin to become MSMA President

A St. Joseph physician will become the new leader of the Missouri State Medical Association on Saturday night, April 15, at the annual Past Presidents' Banquet at the Crown Center Hotel in Kansas City.

At this Banquet, President Howard J. McAlhany, M.D., a Springfield neurosurgeon, will present the MSMA gavel to President-Elect John N. Martin, M.D., a urologist.

Dr. Martin was a member of the MSMA Council for eight years, representing the First District. He is the Immediate Past-Chairman of the Council.

He has served the medical profession for many years and in a number of capacities. Dr. Martin is a member of the American Medical Association, the Southern Central Section American Urological Association, the Trauma Committee American College of Surgeons, and the governing board of the Missouri Methodist Hospital and Medical Center. He has also served on the State Board of Healing Arts and as chairman and assistant treasurer of the American Medical Political Action Committee.

Dr. Martin is Chairman of the Family Guidance Board and of the Comprehensive Health Planning MO-KAN Area. He is past president of the St. Joseph Rotary Club and is presently the District Governor of the Rotary District No. 603.

Born in Bogart, Mo., Dr. Martin graduated from Northwest Missouri State College and then attended Creighton University at Omaha to obtain his M.D. degree. He spent his internship and residency years at St. Margaret's Hospital in Kansas City, Kansas. After two years as captain in the U.S. Army, he took a urological residency in the Methodist Hospital in Indianapolis, Indiana.

Many have enjoyed Dr. Martin's humorous column, "G U Curettings," published monthly in the Buchanan County Medical Society journal. He is fondly known in St. Joseph, where he has practiced since 1956, as the whistling urologist.

## Banquet to honor Past Presidents

In addition to the ceremony for the new MSMA President, the Banquet will honor Past Presidents of the Association and 50-year members.

Outstanding out-of-state entertainment will highlight the evening. Also featured will be Jimmy Tucker and his 12-piece orchestra, who will provide music for dinner and post-show dancing.

Tickets for the Banquet will be available at the MSMA Registration Desk.

## Discuss the Issues with Your AMA Delegates

**Some people think the American Medical Association does things it shouldn't and others feel the AMA doesn't do some of the things it should. At the MSMA Annual Session in Kansas City, there will be an opportunity for Missouri physicians to talk to AMA Delegates . . . and to voice their opinions as to just how the AMA should be handling things.**

**"Discuss the Issues with Your AMA Delegates" will be an open forum-type discussion between Missouri's AMA Delegates and Alternates and any interested physicians.**

**The Delegates will be available from 9 a.m. to 10:30 a.m., Saturday, April 15, in the Congressional Board Room in the Crown Center Hotel.**

# Meet Your MSMA Staff!!

Royal O. Cooper — *Executive Secretary*

C. C. "Cork" Swarens — *Assistant Executive Secretary*

Ron Ellison — *Director of Scientific Affairs*

Don Wilson — *Field Secretary*

John W. Kuebler — *Director of Governmental Relations*

Jean Duensing — *Managing Editor, MISSOURI MEDICINE*

Rose Mahon — *Office Manager*

Becky Hankins — *Director of Communications*

Fran Roedel — *Secretary*

Wilma Sperry — *Bookkeeper*

Linda Bremer — *Secretary*

Ruth Pack — *Secretary*

Barb Crader — *Clerk Typist*

## MSMA membership reports a substantial gain

Membership in the Missouri State Medical Association recorded a substantial gain in 1977. There were 5,087 members in the MSMA as of December 31, 1977, an increase of 171 over the 1976 total of 4,916. In 1976, the net gain was 126.

MSMA membership in the AMA has also shown an increase, although it has not kept up with the number of new physician members. In 1977, there were 3,713 MSMA members who also belonged to the AMA. This is a net gain of 37 over the 1976 total.

## Laetrile study underway

The National Cancer Institute is conducting a retrospective case evaluation of the anti-tumor activity of laetrile (amygdalin) in the treatment of cancer in humans.

Primary criteria for cases to be studied are biopsy-proven cancer with objective evidence of anti-tumor response as documented by scans, x-rays, physical exams, or other means, during a period when the patient was treated only with laetrile (with or without vitamins, special diet, enzymes, or chelating agents).

The collected case material will be reviewed by a panel of clinical oncologists. In addition, the biopsy slides will be studied by the Armed Forces Institute of Pathology in Washington, D.C. The National Cancer Institute will use these results to decide whether further studies of laetrile should be undertaken.

The U.S. Food and Drug Administration has promised that the FDA will initiate no legal action based on the information collected in this evaluation.

For further information on this project, write to: Neil Ellison, M.D., Laetrile Review Office, Landow Building, Room C808, 7910 Woodmont Avenue, Bethesda, MD 20014.

## Physicians included in census

In January, 100,000 physicians nationwide received a census form from the Department of Commerce's Bureau of the Census. For the first time since 1905, physicians are being included in the census in the service industries section.

Physicians are asked to disclose gross receipts, capital expenditures, gross value of fixed assets and other financial matters. Full completion of this form is mandatory and a $500 fine is the penalty for non-compliance.

## Bacterial Endocarditis report

The American Heart Association's Committee on Cardiovascular Disease in the Young has prepared a statement on bacterial endocarditis, a form of heart disease often resulting in scarring of the heart valves.

The statement, entitled "Prevention of Bacterial Endocarditis," outlines preventive measures which should be taken for dental procedures or certain other surgical procedures where a patient might develop bacteremia (bacteria in the blood). Susceptible patients include individuals with prosthetic heart valves, many types of congenital or acquired heart defects or those who have had rheumatic fever.

The report is available from the American Heart Association, Missouri Affiliate, P.O. Box Q, Columbia, Missouri 65201. The statement was originally published in the AHA journal, **Circulation,** July, 1977.

## HEW to compile another Medicare reimbursement list

HEW soon will instruct all Medicare carriers and intermediaries to compile 1977 reimbursement lists. These lists are to contain the names and amounts that every physician, other provider and supplier purportedly received from Medicare during calendar year 1977.

HEW Secretary Joseph Califano says he has the authority to order compilation and release of such information under the Government in the Sunshine Act.

The AMA strongly objects to the release and publication of such lists because of the following reasons:

1. Publication serves no useful purpose and tends to establish guilt by innuendo.
2. A simple listing of dollar amounts paid to individuals — with no indication of the number of patients treated, services provided for those payments or number of hours worked — is essentially meaningless.
3. When physicians do not accept assignment Medicare payments are made directly to patients. In reviewing these total amounts on lists it would be an onerous chore for physicians to determine the accuracy of such figures. Costs to physicians of verifying amounts they actually received could be prohibitive, not to mention excessively time consuming.
4. Costs of compiling reimbursement lists are certain to be extremely high.
5. The potential for error in releasing listings is staggering. Last year's listing of physicians and suppliers reputedly receiving $100,000 from Medicare funds contained 2,200 names. This year's anticipated all-inclusive listings are expected to contain approximately 220,000 names.
6. The grossly unfair stigmatization associated with publication and broadcast of names consistently has driven physicians away from the Medicare and Medicaid programs.
7. There is absolutely no correlation between amounts received under government programs and fraud or abuse. The AMA strongly and consistently has supported efforts to prosecute individuals believed to be guilty of fraud and eliminate any abuses in programs.

When the HEW does begin compiling its list, the physician has but one recourse if he feels the information concerning him is incorrect. According to the Medicare Carrier's manual, the carrier must furnish to the physician/supplier a copy of the information as it will appear on the list and an explanation of the data. The physician then has the opportunity to review the information and to report any discrepancies. If there are any major discrepancies, the carrier must review his records and inform the physician of the results of the investigation.

## AMA advertising program

*The American Medical Association has launched an advertising program to stress the positive values of American medicine and the service provided to patients by physicians. In late March, articles will appear in such publications as Time Magazine, Newsweek, U.S. News and World Report, the Wall Street Journal, the New York Times, and Washington Post.*

*Aimed at opinion-makers, this program is designed to provide a positive climate for the effective practice of medicine. The AMA is staying away from negative, defensive or self-serving measures.*

Stepping down
estrogen levels
to 50 mcg?

**Ortho-Novum 1/50** ☐ 21 and 28 day
TRADEMARK

Each tablet contains 1 mg norethindrone and 0.05 mg mestranol. Each green tablet in the 28-day regimen contains inert ingredients.

**a step in the right direction**

See the complete prescribing information for this product, a summary of which is on the next page.

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OJ 357-7

# Ortho-Novum 1/50
TRADEMARK

Each yellow tablet contains 1 mg norethindrone and 0 05 mg mestranol Each green tablet in the 28-day regimen contains inert ingredients.

**IMPORTANT NOTE—This Information is a BRIEF SUMMARY of the complete prescribing Information provided with the product and therefore should not be used as the sole basis for prescribing the product. This summary was prepared by deleting from the complete prescribing Information certain text, tables, and references where indicated by the symbol [ ]. The physician should be thoroughly familiar with the complete prescribing information and patient information before prescribing the product. [ ].**

**INDICATION:** Contraception [ ]

**CONTRAINDICATIONS:** Oral contraceptives (OC's) should not be used in women with any of the following conditions

1. Thrombophlebitis, thromboembolic disorders or conditions which predispose to these disorders 2. A past history of deep vein thrombophlebitis or thromboembolic disorders. 3. Cerebral vascular or coronary artery disease. 4 Known or suspected carcinoma of the breast 5. Known or suspected estrogen-dependent neoplasia 6 Undiagnosed, abnormal genital bleeding 7 Known or suspected pregnancy (see WARNINGS, No 5).

**WARNINGS:**

The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, and hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic. These studies estimate that users of oral contraceptives are 4 to 11 times more likely to develop these diseases without evident cause than are nonusers. Overall excess mortality due to pulmonary embolism or stroke is on the order of 1.0 to 3.5 deaths annually per 100,000 users and increases with age In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than in nonusers and the risk of thrombotic stroke was 4 to 9.5 times greater in users than in nonusers [ ]

An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported, confirming a previously suspected association These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not Oral contraceptives, however, were found to be a clear additional risk factor. The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group [ ]

In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives. Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved This finding has been confirmed in the United States Cases of thromboembolic disease have been reported in women using progestin-only oral contraceptives, and they should not be presumed to be free of excess risk.

The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age Oral contraceptives are, however, an independent risk factor for these events. [ ]

The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception The estimates of risk of death for each method include the combined risk of the contraceptive method (e g , thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method [ ] The study concluded that the mortality associated with all methods of birth control is low compared to the risk of childbirth, with the exception of oral contraceptives in women over 40, and that the lowest mortality is associated with the condom or diaphragm backed up by early abortion.

The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors. The use of oral contraceptives in women in this age group is not recommended

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g , thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis). Should any of these occur or be suspected, the drug should be discontinued immediately

A four- to six-fold increased risk of post-surgery thromboembolic complications has been reported in oral contraceptive users. If feasible, oral contraceptives should be discontinued at least four weeks before surgery [ ]

2. OCULAR LESIONS There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision; sudden onset of proptosis or diplopia, papilledema, or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures.

3. CARCINOMA Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver [ ]

In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives [ ] One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in subgroups of oral contraceptive users with documented benign breast disease A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented.

In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential. In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception

4 HEPATIC ADENOMA. Benign hepatic adenomas appear to be associated with the use of oral contraceptives. Although benign, and rare, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage This has been reported in short-term as well as long-term users of oral contraceptives, although one study relates risk with duration of use of the contraceptive While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass, or shock

A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives. [ ]

5. USE IN PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare This risk has been estimated as not greater than 4 per 1,000 exposures Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception. Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes

Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb-reduction defects One case control study has estimated a 4 7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births.

In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestins are effective for these uses.

There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives Embryos with these anomalies are virtually always aborted spontaneously. Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown.

Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks. It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive Many clinicians recommend 3 months.

The administration of progestin-only or progestin-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy.

6. GALLBLADDER DISEASE Studies report a doubling of the risk of surgically confirmed gallbladder disease in users of oral contraceptives or estrogen for 2 or more years

7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives

An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives

8. ELEVATED BLOOD PRESSURE. An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use. In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers. The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year. Age is also strongly correlated with the development of hypertension in oral contraceptive users. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives.

9 HEADACHE The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause

10 BLEEDING IRREGULARITIES. Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy [ ] Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease

Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods.

11. ECTOPIC PREGNANCY Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. However, in oral contraceptive failures, the ratio of ectopic to intrauterine pregnancies is higher than in women who are not receiving oral contraceptives, since the drugs are more effective in preventing intrauterine than ectopic pregnancies. [ ]

12 BREAST FEEDING Oral contraceptives given in the postpartum period interfere with lactation. There may be a decrease in the quantity and quality of the breast milk. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. [ ] If feasible, the use of oral contraceptives should be deferred until the infant has been weaned

**PRECAUTIONS: General** 1 A complete medical and family history should be taken prior to the initiation of oral contraceptives The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests. As a general rule, oral contraceptives should not be prescribed for longer than 1 year without another physical examination being performed 2 Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size 3 Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree. Patients becoming significantly depressed while taking oral contraceptives should stop the medication 4 Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, or cardiac or renal insufficiency 5 Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy If jaundice develops in any patient receiving such drugs, the medication should be discontinued 6. Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients 7. Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency 8. Serum folate levels may be depressed by oral contraceptive therapy Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency 9 The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives.

a. Increased sulfobromophthalein retention

b. Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3; increased norepinephrine-induced platelet aggregability

c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered.

d Decreased pregnanediol excretion.

e Reduced response to metyrapone test

**INFORMATION FOR THE PATIENT (See Patient Package Insert)**

**DRUG INTERACTIONS:** Reduced efficacy and increased incidence of breakthrough bleeding have been associated with rifampin A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin [ ]

**ADVERSE REACTIONS:** An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS):

Thrombophlebitis, pulmonary embolism; coronary thrombosis, cerebral thrombosis, cerebral hemorrhage; hypertension; gallbladder disease, congenital anomalies

There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed

Mesenteric thrombosis; benign hepatomas, neuro-ocular lesions, e.g , retinal thrombosis and optic neuritis

The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug related

Nausea, usually the most common adverse experience, vomiting reaction, occurring in approximately 10% or less of patients during the first cycle Other reactions, as a general rule, are seen much less frequently or only occasionally, gastrointestinal symptoms (such as abdominal cramps and bloating); breakthrough bleeding, spotting; change in menstrual flow, dysmenorrhea, amenorrhea during and after treatment, temporary infertility after discontinuance of treatment, edema, chloasma or melasma which may persist, breast changes. tenderness, enlargement and secretion; change in weight (increase or decrease), change in cervical erosion and cervical secretion; possible diminution in lactation when given immediately postpartum, cholestatic jaundice, migraine, increase in size of uterine leiomyomata, rash (allergic), mental depression; reduced tolerance to carbohydrates, vaginal candidiasis.

The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted:

Premenstrual-like syndrome; intolerance to contact lenses, change in corneal curvature (steepening); cataracts; changes in libido, chorea, changes in appetite, cystitis-like syndrome, headache; nervousness; dizziness; hirsutism, loss of scalp hair; erythema multiforme; erythema nodosum; hemorrhagic eruption, vaginitis, porphyria, impaired renal function.

**ACUTE OVERDOSE:** Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children Overdosage may cause nausea, and withdrawal bleeding may occur in females [ ]

Ortho Pharmaceutical Corporation • Raritan, N J. 08869 Ortho

# OFFICIAL DELEGATES

## *120th Annual Session*

| *County* | *Delegates* | *Alternates* |
|---|---|---|
| Andrew | Warren C. Baker, Savannah | J. L. Villahermosa, Savannah |
| Audrain | Ben Jolly, Mexico | Gerald Hoxworth, Mexico |
| Barton | Alvin R. Cain, Lamar | Thomas W. Carroll, Lamar |
| Boone | Hugh E. Stephenson, Columbia | |
| ” | William B. See, Columbia | |
| ” | Ben A. Moranville, Columbia | |
| ” | A. Sherwood Baker, Columbia | |
| ” | Kenneth L. Rall, Columbia | |
| ” | William C. Allen, Columbia | |
| ” | George J. Fuchs, Columbia | |
| ” | Thomas W. Burns, Columbia | |
| ” | George W. N. Eggers, Columbia | |
| ” | Leroy J. Miller, Columbia | |
| ” | George P. Wilson, Columbia | |
| ” | Larry E. Millikan, Columbia | |
| ” | Lewis J. Garrotto, Columbia | |
| ” | William D. Bradshaw, Columbia | |
| Buchanan | Allen I. Herman, St. Joseph | Gerald E. Fox, St. Joseph |
| ” | Wallace McDonald, St. Joseph | Berwyn H. Moen, St. Joseph |
| ” | Edward M. Stevens, St. Joseph | Gordon S. Paulson, St. Joseph |
| ” | Ernest E. Wadlow, St. Joseph | Robert R. Stuber, St. Joseph |
| ” | Gary A. Dyer, St. Joseph | John R. McDaniel, St. Joseph |
| ” | Edmund W. Kline, St. Joseph | Ernest E. Weinand, St. Joseph |
| Butler-Wayne-Ripley-Carter | George Ladyman, Poplar Bluff | Austin R. Tinsley, Poplar Bluff |
| ” | Kirby L. Turner, Poplar Bluff | E. C. Carlson, Poplar Bluff |
| ” | W. D. Robertson, Poplar Bluff | J. L. Hunt, Poplar Bluff |
| ” | Henry E. Lestman, Doniphan | |
| Callaway | Vernon B. Jackson, Fulton | Henry Durst, Fulton |
| Cape Girardeau | Jean A. Chapman, Cape Girardeau | Gordon W. Eller, Cape Girardeau |
| ” | Charles H. Cozean, Cape Girardeau | J. Marshall Jung, Cape Girardeau |
| ” | John K. Holcomb, Cape Girardeau | Carl F. Ritter, Cape Girardeau |
| ” | Melvin C. Kasten, Cape Girardeau | J. W. Terry, Cape Girardeau |
| Chariton-Macon-Monroe-Randolph | D. D. Stuart, Brunswick | Ruel Miciano, Buckner |
| ” | D. E. Eggleston, Macon | J. E. Campbell, Macon |
| ” | F. A. Barnett, Paris | W. D. Chute, Moberly |
| ” | C. C. Cohrs, Moberly | G. R. Hudson, Moberly |
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| ” | Donald A. Fakhoury, Kansas City | Thomas Hendren, Liberty |
| ” | William R. McPhee, Kansas City | Bryan Bownik, Kansas City |
| ” | Donald E. Kuenzi, Kansas City | Ramon DyRagos, Kansas City |
| ” | Robert D. Williams, Kansas City | |
| ” | G. Comer Bates, North Kansas City | |
| Clinton | Larry A. Ozenberger, Plattsburg | James H. Sweiger, Plattsburg |
| Cole | Robert Tanner, Jefferson City | Royal S. Garner, Jefferson City |
| ” | Mary K. McCaffree, Jefferson City | Thomas J. Ryan, Jefferson City |
| ” | Kenneth C. Siu, Jefferson City | James Allan, Jefferson City |
| ” | Byron E. Watts, Jefferson City | Francis X. Meier, Jefferson City |
| Cooper | George W. Winn, Boonville | |
| Dallas-Hickory-Polk-Dade | George Robinson, Humansville | Monte Kahler, Bolivar |
| ” | Lee McNeel, Greenfield | |
| ” | O. A. Griffin, Buffalo | Evelyn Griffin, Buffalo |
| ” | | |
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| Franklin-Gasconade-Warren | William Richardson, Union | Sam Farrell, Washington |
| ” | Harold Hoelscher, Warrenton | James Wolcott, Washington |
| ” | George Workman, Hermann | James T. Shaw, Hermann |
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| Grundy | Albert D. Cross, Trenton | Young E. Park, Chillicothe |
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| Linn | John R. Dixon, Brookfield | Billy D. Howell, Brookfield |
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| ” | H. B. Ivy, Springfield | Arlen D. Winsky, Springfield |
| ” | Darrell Domann, Springfield | Michael S. Clarke, Springfield |
| ” | Charles Ash, Springfield | A. A. Ancheta, Springfield |
| ” | DeArmond Moore, Springfield | Richard Kissell, Springfield |
| ” | David Spalding, Springfield | Michael Gentry, Springfield |
| ” | Don E. Menchetti, Springfield | Calvin Hawkins, Springfield |
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| ” | C. Courtney Whitlock, Springfield | Michael H. Luzecky, Springfield |
| ” | James R. Cook, Springfield | Duane C. Hellam, Springfield |
| ” | Francis M. Corry, Springfield | |
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| Howard | William G. Marshall, Glasgow | Maurice Leech, Fayette |
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| ” | Lafe W. Bauer, Kansas City | |
| ” | Calvin Beck, Kansas City | |
| ” | Richard Biery, Kansas City | |
| ” | Alfred D. Biggs, Jr., Kansas City | |
| ” | Marvin D. Bordy, Kansas City | |
| ” | Raymond J. Caffrey, Kansas City | |
| ” | J. G. Campbell, Kansas City | |
| ” | Richard M. Childs, Kansas City | |
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| ” | I. H. Clark, Kansas City | |
| ” | Mary Cortner, Kansas City | |
| ” | Martin L. Crow, Kansas City | |
| ” | Lawrence Evans, Kansas City | |
| ” | Donald R. Griffin, Kansas City | |
| ” | John A. Griffith, Jr., Kansas City | |
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| ” | John D. Hunkeler, Kansas City | |
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| ” | Larry G. Piepergerdes, Kansas City | |
| ” | Americo G. Ramos, Kansas City | |
| ” | Wade V. Robinnette, Kansas City | |
| ” | William T. Sirridge, Kansas City | |

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| ” | Walter J. Stelmach, Kansas City | |
| ” | Gerald F. Tuohy, Kansas City | |
| ” | William C. Van Buskirk, Kansas City | |
| ” | George E. Volk, Kansas City | |
| ” | James H. Whitaker, Kansas City | |
| ” | S. Dwight Woods, Kansas City | |
| ” | Ronald A. Youmans, Kansas City | |
| ” | James P. Youngblood, Kansas City | |
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| ” | John R. Esther, Joplin | Lowell Pottenger, Joplin |
| ” | Gil B. Manalo, Carthage | F. Wendell Pence, Joplin |
| ” | Robert L. Willcoxon, Joplin | Howard H. Roberts, Joplin |
| ” | Edward Grim, Joplin | Frank Clark, Joplin |
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| Johnson | Keith D. Jones, Warrensburg | Charles Lederer, Warrensburg |
| Lafayette-Ray | Jordan Kelling, Waverly | Catherine Boydston, Odessa |
| ” | Charles Riley, Richmond | Jeanne DeMotte, Richmond |
| Lewis-Clark-Scotland | Landis Y. Davis, Canton | |
| Marion-Ralls-Shelby | Charles A. Lichty, Shelbina | Robert W. Buben, Hannibal |
| ” | J. Russell Comer, New London | Carl R. Kruse, Palmyra |
| ” | Michael J. Bukstein, Hannibal | Phillip B. Foreman, Hannibal |
| Mid-Missouri | | |
| Crawford | Frank A. Elders, Cuba | |
| Dent | Deo K. Bhati, Salem | J. D. Shukla, Salem |
| Laclede | Rae W. Froelich, Lebanon | Dennis Hite, Lebanon |
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| Phelps | Larry Marti, Rolla | Ted Smith, Rolla |
| Pulaski | George Slahorek, Fort Leonard Wood | E. E. Feind, Rolla |
| Miller | Carl T. Buehler, Eldon | |
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| Iron | | |
| Madison | | |
| Washington | | |
| Reynolds | | |
| Bollinger | | |
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| Montgomery | Samuel Byland, Wellsville | |
| Morgan | Jack Gunn, Versailles | C. Robert Hall, Versailles |
| North Central | | |
| Adair | Milton T. English, Kirksville | |
| Schuyler | | |
| Knox | Francis Tarvydas, Edina | |
| Sullivan | | |
| Putnam | | |
| Northwest | | |
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| Holt | James Humphrey, Mound City | G. Raymond Wempe, Maryville |
| Atchison | Edward D. Bare, Tarkio | Edward Niedermeyer, Tarkio |
| Gentry | A. L. Carlin, Stanberry | E. D. Imes, Maryville |
| Worth | Frank Matteson, Grant City | Benjamin F. Byland, Maryville |
| Ozarks | | |
| Barry | Mary Merideth, Cassville | Victor Occeno, Monett |
| Lawrence | Kenneth Glover, Mt. Vernon | William Hamilton, Aurora |
| Stone | Fred Wommack, Crane | Charles Christianson, Mt. Vernon |
| Christian | Stanley Roper, Ozark | Francisco R. Esparrago, Monett |
| Taney | Roy Gillespie, Branson | Charles Spears, Branson |
| Newton | Paul Anderson, Neosho | Robert Betz, Neosho |
| McDonald | Larry Barnes, Neosho | Roy Kenney, Neosho |
| Pemiscot | Clarence McKaskle, Caruthersville | |
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| ” | Job Pontillas, Perryville | Joseph Lutkewitte, Ste. Genevieve |
| Pettis | Robert L. Glass, Sedalia | |
| ” | A. J. Campbell, Sedalia | |

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| Platte | S. Lloyd Allen, Kansas City | |
| St. Charles-Lincoln | | |
| " | | |
| " | | |
| " | | |
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| " | M. Roman Banton, St. Louis | Howard J. Aylward, St. Louis |
| " | Dwayne Bergmann, St. Louis | William C. Banton, II, St. Louis |
| " | Donald T. Behrens, St. Louis | William Berman, St. Louis |
| " | Ralph L. Biddy, St. Louis | |
| " | Morton A. Binder, St. Louis | Robert L. Bolton, St. Louis |
| " | Leslie F. Bond, St. Louis | James E. Bowers, St. Louis |
| " | Robert D. Brookes, St. Louis | |
| " | Gerard M. Callaghan, St. Louis | Carlo Caciolo, St. Louis |
| " | Harry O. Cole, St. Louis | |
| " | Thomas J. Cooper, St. Louis | Phillip Comens, St. Louis |
| " | Cyril Costello, St. Louis | Marshall B. Conrad, St. Louis |
| " | James S. Criscione, St. Louis | Juan C. Corvalan, St. Louis |
| " | Richard Dames, St. Louis | Stephen R. Crespin, St. Louis |
| " | Richard K. Danis, St. Louis | Donald H. Finger, St. Louis |
| " | Pablo C. deUngria, St. Louis | Sylvester A. Flotte, St. Louis |
| " | | George E. Gantner, Jr., St. Louis |
| " | Robert C. Drews, St. Louis | A. C. Gerst, St. Louis |
| " | James Edwards, St. Louis | Jonathan Gold, St. Louis |
| " | Richard H. Fallon, St. Louis | John G. Gregory, St. Louis |
| " | Daniel Fraser, St. Louis | William P. Hamilton, St. Louis |
| " | R. O. Frederick, St. Louis | David A. Hardy, St. Louis |
| " | John A. Gantz, St. Louis | Thomas D. Hartnett, St. Louis |
| " | August W. Geise, St. Louis | James N. Heins, St. Louis |
| " | Clement B. Grebel, St. Louis | Harry G. Hightower, St. Louis |
| " | Joseph Grindon, St. Louis | Ronald E. Hoffmann, St. Louis |
| " | George L. Hawkins, St. Louis | John R. Hogan, St. Louis |
| " | Patrick C. Hogan, St. Louis | Vencel W. Hollo, St. Louis |
| " | Simon Horenstein, St. Louis | Charles A. Jost, St. Louis |
| " | Otey S. Jones, St. Louis | A. R. Khan, St. Louis |
| " | Donald R. Judd, St. Louis | Charles Kilo, St. Louis |
| " | John J. Kelly, St. Louis | Edward D. Kinsella, St. Louis |
| " | Edward H. Kowert, St. Louis | Norton Kronemer, St. Louis |
| " | Robert E. Kuhlman, St. Louis | George H. Lawrence, St. Louis |
| " | Charles Ladd, St. Louis | Leo J. LeBlanc, St. Louis |
| " | Paul U. Larson, St. Louis | Jerome L'Ecuyer, St. Louis |
| " | Luis L. Lau, St. Louis | |
| " | Francis X. Lieb, St. Louis | Everett R. Lerwick, St. Louis |
| " | J. Otto Lottes, St. Louis | Vincent LoPiccolo, Jr., St. Louis |
| " | Robert R. MacDonald, St. Louis | Otakar Machek, St. Louis |
| " | Napoleon Maminta, St. Louis | Daniel J. Martin, St. Louis |
| " | Paul F. Max, St. Louis | Marvin Mishkin, St. Louis |
| " | Roger L. Mell, St. Louis | Charles H. Nicolai, St. Louis |
| " | Melvin E. Meyer, St. Louis | Frank Niesen, St. Louis |
| " | Jerry R. Meyers, St. Louis | Charles G. Obermeyer, St. Louis |
| " | Robert N. Miller, St. Louis | Henry D. Onken, St. Louis |
| " | Emil Miskovsky, St. Louis | Frank Ostapowicz, St. Louis |
| " | William T. Newton, St. Louis | N. Bruce Pitsinger, St. Louis |
| " | William J. Ott, St. Louis | Arthur A. Porporis, St. Louis |
| " | Theodore L. Paletta, St. Louis | Arthur L. Prensky, St. Louis |
| " | Richard T. Quick, St. Louis | Cary Presant, St. Louis |
| " | Jean L. Ray, St. Louis | George B. Rader, St. Louis |
| " | David Reisler, St. Louis | Robert Rainey, St. Louis |
| " | Rosendo A. Reyes, St. Louis | Robert H. Ramsey, St. Louis |
| " | Hubert A. Ritter, St. Louis | Lester T. Reese, St. Louis |
| " | Charles L. Roper, St. Louis | |
| " | Glennon Schaefer, St. Louis | Adolfo Rizzo, St. Louis |
| " | John S. Sciortino, St. Louis | Herbert E. Rosenbaum, St. Louis |
| " | Donald G. Sessions, St. Louis | George E. Roulhac, St. Louis |
| " | William Shieber, St. Louis | T. E. Rusan, St. Louis |
| " | Earl W. Shelton, St. Louis | Herman Russell, St. Louis |

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| ” | A. J. Signorelli, St. Louis | Charles C. Schober, St. Louis |
| ” | Ivan W. Sletten, St. Louis | John F. Schweiss, St. Louis |
| ” | Kenneth R. Smith, St. Louis | Edward J. Shaw, St. Louis |
| ” | John Sopuch, St. Louis | David L. Simon, St. Louis |
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| ” | Louis P. Stickley, St. Louis | Benjamin F. Smith, St. Louis |
| ” | George E. Thoma, Jr., St. Louis | J. Allen Thiel, St. Louis |
| ” | Hugh R. Waters, St. Louis | George A. Ulett, St. Louis |
| ” | James M. Whittico, St. Louis | |
| ” | David L. Wilkinson, St. Louis | |
| ” | Carol F. Williams, St. Louis | J. Leslie Walker, St. Louis |
| ” | R. Dean Wochner, St. Louis | Stephen Waltman, St. Louis |
| ” | Robert M. Woolsey, St. Louis | William Webber, St. Louis |
| ” | George Zografakis, St. Louis | Tyrus Winter, St. Louis |
| ” | George Bohigian, St. Louis | Bruce Walz, St. Louis |
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| ” | R. William Burmeister, St. Louis | |
| ” | Stanley J. Ciapciak, St. Louis | |
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| ” | Frank O. Richards, St. Louis | |
| ” | Ernest T. Velasco, St. Louis | |
| ” | James C. Vest, St. Louis | |
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| ” | Robert Becker, St. Louis | David Berwald, St. Louis |
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| ” | Harry C. Eggleston, St. Louis | Godofredo Herzog, St. Louis |
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| Wright | James Hasek, Mountain Grove | Martin Hasek, Mountain Grove |
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| West Central | | |
| Bates | Charles Lusk, Butler | Arthur L. Hansen, Butler |

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| Cedar | Robert L. Magee<br>El Dorado Springs | Rolla B. Wray, Nevada |
| St. Clair | Glen H. Reed, Appleton City | Robert H. Brownsburger,<br>Appleton City |
| Vernon | Roy W. Pearse, Nevada | L. M. Magruder, Nevada |

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Mr. Fred McQueary
*University of Missouri-Kansas City*
Mr. Steve Smalley
Mr. Bob Ferrara

*St. Louis University*
Ms. Tamara Ostapowicz
Mr. Paul J. Sheehan
*Washington University*
Mr. Steven J. Adler
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Guy N. Magness, University City
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## COMMERCIAL EXHIBITS LIST

### *For the 120th Annual Session*

| *Booth* | *Exhibitors* |
|---|---|
| 4 | American Medical Facilities Corporation<br>Maryland Heights |
| 9 | Bio-Science Laboratories<br>St. Louis |
| 6 | Blue Cross & Blue Shield of Kansas City<br>Kansas City |
| 16 | Boehringer Ingelheim Ltd.<br>Elmsford, N. Y. |
| 14 | Bristol Laboratories<br>Syracuse, N. Y. |
| 7 | Encyclopaedia Britannica<br>Chicago, Ill. |
| 32 | Fred S. James of Missouri, Inc.<br>Kansas City |
| 21 | Johnson & Johnson, Dermatological Division<br>New Brunswick, N. J. |
| 17 | The Key Company<br>St. Louis |
| 26 | McNeil Laboratories, Inc.<br>Fort Washington, Pa. |
| 8 | Medical Defense Associates, Ltd.<br>Springfield |
| 15 | The Medical Protective Company<br>Fort Wayne, Ind. |
| 20 | Meyer Laboratories, Inc.<br>Fort Lauderdale, Fla. |
| 13 | Miller Pharmacal, Inc.<br>West Chicago, Ill. |
| 24 | Missouri Cancer Programs<br>Columbia |
| 18 | MSMA/MOMEDICO<br>Jefferson City |

| *Booth* | *Exhibitors* |
|---|---|
| 27 | Munns Medical Supply Company<br>Topeka, Kan. |
| 10 | Organon Pharmaceuticals<br>West Orange, N. J. |
| 2 | Rowell Laboratories, Inc.<br>Baudette, Minn. |
| 4A | R. Rowland & Company, Inc.<br>St. Louis |
| 28 | W. B. Saunders Company<br>Philadelphia, Pa. |
| 19 | Searle Laboratories<br>Chicago, Ill. |
| 11 | Smith Kline & French Laboratories<br>Philadelphia, Pa. |
| 1 | Social Security Administration<br>Bureau of Disability Insurance<br>Kansas City |
| 22 & 23 | Southwestern Bell Telephone Company<br>Kansas City |
| 25 | Stuart Pharamaceuticals<br>Wilmington, Del. |
| 29 | Syntex Laboratories, Inc.<br>Palo Alto, Calif. |
| 30 | United Medical Equipment Company<br>Kansas City |
| 3 | United States Air Force Medical Recruiting<br>Kansas City |
| 31 | Vitalograph Medical Instrumentation<br>Lenexa, Kan. |
| 12 | Wallace Laboratories<br>Cranbury, N. J. |
| 5 | Wyeth Laboratories<br>Philadelphia, Pa. |

In lieu of exhibits, the following firms have made cash donations to assist in the sponsorship of Scientific Sessions:

Ciba Pharmaceutical Company
Summit, N. J.

Eli Lilly and Company
Indianapolis, Ind.

Geigy Pharmaceuticals
Summit, N. J.

Merck Sharp & Dohme
West Point, Pa.

A. H. Robins Company, Inc.
Richmond, Va.

## SCIENTIFIC EXHIBITS WANTED

### For 120th Annual Session

Do you have an exhibit or know of an exhibit of scientific interest to physicians? You are invited to display it on April 14-15 during the MSMA Annual Session at the Crown Center Hotel in Kansas City.

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Each tablet contains: aspirin, 227 mg; phenacetin, 162 mg; and caffeine, 32 mg; plus codeine phosphate in one of the following strengths: #4—60 mg (gr 1); #3—30 mg (gr ½); #2—15 mg (gr ¼); and #1—7.5 mg (gr ⅛), (Warning—may be habit-forming). CIII

Wellcome
Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

# Clinical experience & continuing confidence

KAON® ELIXIR was introduced in **1954**, followed by KAON® TABLETS in **1963.** Decades of clinical experience indicate acceptability, effectiveness, and safety in the majority of patients; should abdominal pain occur, therapy should be discontinued. Both have been taken by patient after patient, day after day, year after year, to correct potassium deficiencies. Both have consistently demonstrated their value when diet alone is inadequate for potassium replacement.

**Kaon® Elixir**
(potassium gluconate)
**Kaon® Tabs**
(potassium gluconate)

BRIEF SUMMARY
**Kaon Tablets/Kaon Elixir**

**KAON® (potassium gluconate) TABLETS**

**Description:** Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
**Indications:** Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
**Contraindications:** Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
**Warning:** There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
**Precautions:** In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

1954
1978
Time is the test of all things

tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

**Adverse Reactions:** Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

**Overdosage:** Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

**KAON® (potassium gluconate) ELIXIR**

**Description:** Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

**Indications:** See Kaon Tablets.

**Precautions:** See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

**Adverse Reactions:** See Kaon Tablets.

**Overdosage:** See Kaon Tablets.

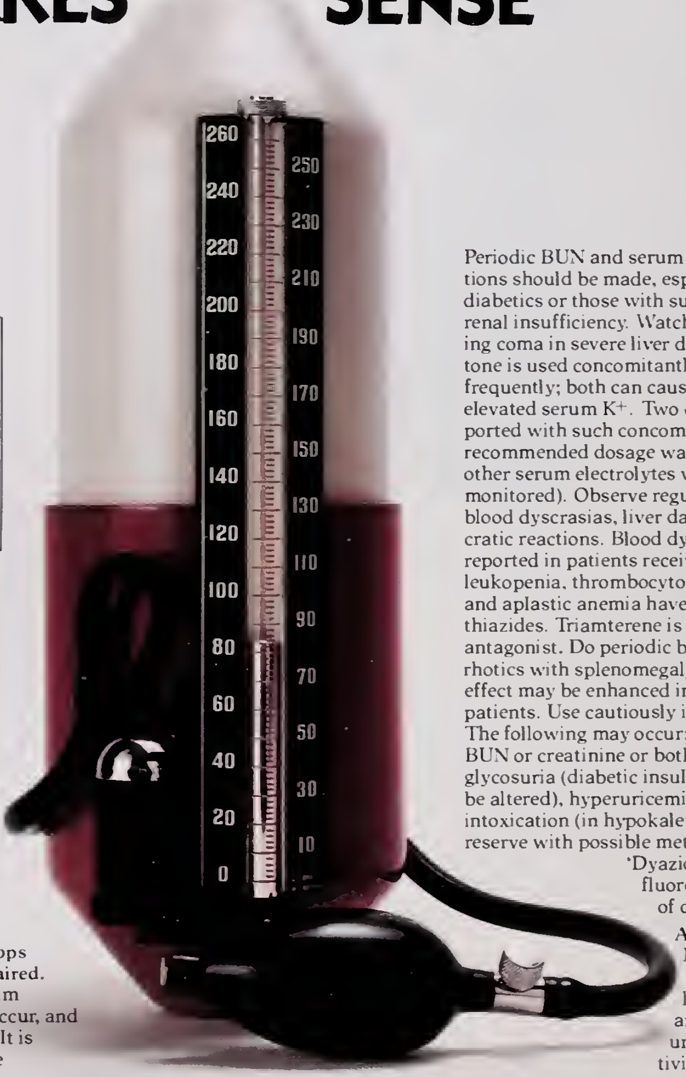
**WARREN-TEED**
LABORATORIES, INC.
DIVISION OF **ADRIA LABORATORIES INC.**
COLUMBUS, OHIO 43215

# TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

# DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

## MAKES SENSE



Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:

* Warning
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

**Contraindications:** Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum $K^+$ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict $K^+$ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum $K^+$ frequently; both can cause $K^+$ retention and elevated serum $K^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL OF HYPERTENSION.***
**SERUM K⁺ AND BUN SHOULD BE CHECKED PERIODICALLY.**
**(SEE WARNINGS SECTION.)**

SK&F CO., Carolina, P.R. 00630

**SK&F CO.**
a SmithKline company

# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**THE PUBLIC** shows its greatest confidence in the "people running medicine," according to a Harris Survey taken in late 1977. Fifty-five percent of the public said it has "a great deal of confidence" in medical leadership, compared to 42% in a 1976 survey. Scoring second to medical leadership was higher education with 41%. An earlier Harris Survey, designed to test whether the public thinks the leaders of various institutions and professions are "in touch with" the people they are supposed to lead or help, showed that 73% felt medicine's leaders "really know what people want." Sixty-nine percent thought so in 1975.

**ANOTHER SURVEY** conducted by the University of Chicago Center for Health Administration in January revealed that 88% of the American people are "satisfied" with their health care and that no one population group has great trouble getting to see a doctor. In another Harris Survey, 62% of the public said the current health care system is acceptable, but only 39% showed real enthusiasm for it. However, 49% of those polled were opposed to "a national health service under which everyone would get free health care paid for out of taxes. . . ." Only 31% favored such a scheme.

**A ONE-THIRD** reduction in capitation assistance for medical education and a meager 1.5% increase in funding for the National Institutes of Health (NIH) were proposed in President Carter's budget for fiscal year 1979. In letters last year to the Office of Management and Budget and Congress, the AMA had urged that the NIH budget be increased 9% over the fiscal year 1978 budget. The AMA also recommended the following increases for other federal health programs: $50 million for maternal and child health; $10 million for family planning; $4.5 million for migrant health; $8 million for the National Health Service Corps; $15 million for emergency medical services; $14 million to combat venereal diseases; $13 million for immunization; $2.5 million for lead-based paint poisoning prevention; $7 million for occupational health; $60 million for mental health; $25 million to combat alcoholism; $13.2 million for health professions education; $80 million for aging; $30 million for the Food and Drug Administration; $40 million for Indian health services.

**THE VOLUNTARY COST** Containment Program designed by the AMA, the American Hospital Association and the Federation of American Hospitals was described recently in a letter to each member of Congress. The letter is the first in a series of direct communication with Congressmen. It points out that the 15-point action program of the Voluntary Cost Containment Program "covers the key factors in health care cost inflation" and "will reinforce mechanisms that are already in place to address this problem."

**A NATIONAL HEALTH** insurance bill will be submitted to Congress "later this year," President Carter said in his State of the Nation address. "While Congress will not have the time to complete action on this proposal in 1978," Carter said, "it is important to begin the national debate on the many complex issues involved in national health insurance." Most people believe the national debate on NHI has been going on for at least 20 years.

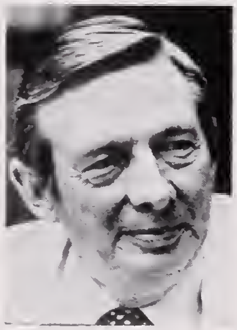
**A PROGRAM** to stimulate public participation in food and drug policy will be launched this spring in seven cities by the Food and Drug Administration. The program will open simultaneously in Boston, Chicago, Denver, Los Angeles, New York, Pittsburgh and St. Louis. FDA Commissioner Donald Kennedy, Ph.D., said one aim of the project is to "demystify medicine."

**THE THEME** for the 31st National Conference on Rural Health will be "Building Local Alliances for Rural Health." The meeting will be April 5-7 at the Regency Hotel, Denver.

**A 30-MINUTE VERSION** of the AMA film, "A Critical Difference," is now available for use by state, county and specialty medical societies. The original 60-minute version was viewed last year by several million people. The film examines the important role of the private sector in health care delivery in this country. Write Dept. of Radio, TV and Motion Pictures, AMA Headquarters.

# NEWS From the Medical Schools

### SAINT LOUIS UNIVERSITY



Dr. Olson

*Robert E. Olson,* M.D., Ph.D., Alice A. Doisy Professor of Biochemistry and chairman of the Edward A. Doisy Department of Biochemistry, has been selected to receive the Tenth W. O. Atwater Memorial Lectureship. He will deliver the lecture at the meeting of the American College of Physicians on April 17 in Boston, Mass.

The topic of Dr. Olson's lecture will be "Clinical Nutrition, An Interface Between Human Ecology and Internal Medicine." His selection is based upon the internationally recognized research he has performed on cardiac metabolism and nutrition enzymology. He also is recognized for his work on nutrition in alcoholism and the accomplishments of his distinguished career as a teacher and academic administrator in the field of nutrition research.

Selection of the W. O. Atwater Memorial Lectureship recipient is made by a panel established by the United States Department of Agriculture.

A grant for $200,000 to complete the financing of the $6 million Margaret McCormick Doisy Learning Resources Center at the School of Medicine has been given to the University by The Kresge Foundation, Troy, Mich.

The Learning Resources Center, a three-level educational facility which houses the Medical Center library, a 400-seat auditorium, clinical simulation laboratories and multi-media facilities, is named in honor of Margaret McCormick Doisy, wife of internationally-renowned biochemist Edward A. Doisy, Ph.D., chairman emeritus of the Edward A. Doisy Department of Biochemistry at the School of Medicine.

*Francis X. Paletta,* M.D., clinical professor of surgery and director of the Section of Plastic Surgery, and *Donald L. Kaminski,* M.D., associate professor of surgery, have been elected president and treasurer, respectively, of the St. Louis Surgical Society.

The Department of Internal Medicine recently announced the appointment of several new faculty members. New appointees and their faculty rank are *Jack R. Lichtenstein,* M.D., associate professor; *Rodney H. Lusk,* M.D., assistant professor; *George A. Williams, III,* M.D., assistant professor; *Harvey J. Armbrecht,* Ph.D., assistant research professor; and *Peter F. Hoffman,* M.D., Ph.D., instructor.

### UNIVERSITY OF MISSOURI-COLUMBIA

*Dr. Clark Watts,* neurosurgeon, and *Dr. John Byer,* neurologist, are directing the Medical Center's participation in an international study of the extracranial/intracranial arterial bypass operation. Initiated by the University of Western Ontario, the study now includes 32 U. S. institutions and eight foreign institutions.

Dr. Byer said that the study's purpose is to determine whether the bypass reduces transient ischemic attacks or completed strokes in at least 50% of patients undergoing the operation. While the procedure frequently is practiced toward that end, only limited scientific investigation has yet been undertaken to document its success rate.

Each participating hospital will perform the operation on patients referred to them and who meet clinical, radiological and medical criteria. The patient will pay for his treatment. Dr. Byer said a total of 600 patients must be followed postoperatively for five years before a conclusion can be reached. Further information can be obtained by calling Dr. Byer at 314/882-3133 or Dr. Watts at 314/882-3915.

The UMC Medical Center's new cardiovascular cathetherization laboratory is now expected to open the end of March or early in April. The extensive renovation and updating of equipment will make the laboratory the most advanced facility for cardiac catheterization in the 59-county Missouri Health Services Area II.

Technical advances available at the new laboratory will include computerized equipment to process physiologic and ventricular volume information and hardware to film coronary angiograms using craniocaudal angulation of the X-ray beam.

The director is Dr. Nill Madigan, who was educated at Oxford University and the Mayo Graduate School of Medicine. Dr. Madigan has said that physicians in other parts of the state may call the laboratory (314/882-7951) to refer their patients for testing. Laboratory personnel will help make arrangements for the patients' admittance to the hospital.

Dr. Madigan added that renovation also is under way in the thoracic, cardiac and pediatrics intensive care units to make the total patient care facilities among the best in Missouri.

The School of Medicine has been selected as one of four institutions to receive a $15,000 grant from the American Medical Students Association Foundation for the development of an interdisciplinary course on health care.

The course is being offered this semester through the schools of nursing and medicine. Students are learning the functions and relationships of six disciplines—occupational therapy, physical therapy, health education, nutrition, medicine and nursing.

*Susan Taylor*, co-director of the grant and associate professor of nursing, said, "The idea is to promote the development of interdisciplinary health care teams. We are interested in looking at the whole patient in an effort to encourage health maintenance."

*Dr. Jerry Royer*, associate dean of the School of Medicine, is also co-director of the project.

*Dr. Charles L. Puckett*, associate professor and head of the Division of Plastic Surgery at the Medical Center, has received a research grant award from the Educational Foundation of the American Society of Plastic and Reconstructive Surgeons.

Dr. Puckett has focused his attention to research in the areas of vascular and microvascular surgery and is researching the microvascular applications to lymphedema in reconstructive surgery.

## UNIVERSITY OF MISSOURI-KANSAS CITY

The Second Annual Dorothy Lee Ross Distinguished Lectureship will feature Robert Higgins Ebert, M.D. as the guest speaker. The lecture is scheduled to take place each year preceding the Oath Ceremony for graduating seniors at the School of Medicine.

A past vice-president for health affairs at Harvard Medical School, Dr. Ebert is currently president of the Milbank Memorial Fund in New York, an organization which concentrates on funding activities in the fields of public health and health care delivery. He also holds the title of the Carolyn Shields Walker Professor at Harvard.

Dr. Ebert follows Dr. Alfred Fishman, director of the Cardiovascular Pulmonary Division at the Hospital of the University of Pennsylvania, in this distinguished lectureship which was established last year by Mr. Walter W. Ross, III in memory of his mother, the late Dorothy Lee Ross.

The U. S. Supreme Court has found in favor of the University in the case of Charlotte Horowitz vs. the University of Missouri-Kansas City School of Medicine. This decision supports the procedure and judgements of the School in assessing a student's performance and is considered to be a decision of importance for higher education in general.

## WASHINGTON UNIVERSITY

An orientation program and tour of the research facilities and education center of the new Diabetes Research and Training Center at the School of Medicine were held on February 10.

The School of Medicine recently received a five-year grant of more than $4 million from The National Institutes of Health to establish the Diabetes Center. While the Center is involved in research activities, a major thrust is in the training and education of health care professionals and para-professionals in the delivery of diabetic health care. The Center also is involved in innovative patient education programs.

*Julius Axelrod*, Ph.D., chief of the Section of Pharmacology of the National Institute of Mental Health, was named to deliver the first annual Oliver H. Lowry Lecture in Pharmacology at the School of Medicine on March 7.

Dr. Axelrod, a member of the National Academy of Sciences, won the Nobel Prize in Medicine and Physiology in 1970. He received his Ph.D. degree from George Washington University in 1955.

The Lowry Lecture was established to honor Oliver H. Lowry, M.D., Ph.D., professor of pharmacology. Dr. Lowry served as head of the Department of Pharmacology from 1947-1976 and as dean of the School of Medicine from 1955-1958. He also is a member of the National Academy of Sciences.

As a member of numerous national scientific committees, Dr. Lowry has widely influenced research in medical science, particularly neurology, neurochemistry, mental retardation and analytical biochemistry.

# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D., ST. JOSEPH

### BUCHANAN COUNTY MEDICAL SOCIETY

The annual "Heart" program of the Buchanan County Medical Society was held at the Swiss Chalet in St. Joseph on February 1.

The local Heart Association has sponsored a program on the heart during National Heart Month in February for 20 years.

Mr. Watson Dersham, executive director of the Missouri Division of the American Heart Association, was a special guest at the meeting which followed dinner and a business session.

The speaker for the event was Dr. H. Mitchell Perry, professor of medicine at Washington University School of Medicine and director of hypertension programs for the Medical School and the VA Hospital in St. Louis. He discussed "Hypertension."

Dr. William H. Ames introduced the speaker. Both Dr. Perry and Dr. Ames are past-presidents of the Missouri Heart Association.

R. PHILIP ACUFF, M.D., *Secretary*

## SECOND DISTRICT

COUNCILOR
JOHN W. WALTERSCHEID, M.D.,
HANNIBAL

### CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society met on February 9 in the dining room of Woodland Hospital in Moberly for a dinner meeting with wives as guests.

The following were present: Dr. and Mrs. J. E. Campbell and Dr. and Mrs. D. E. Eggleston, Macon; Dr. and Mrs. F. A. Barnett, Paris; Dr. and Mrs. D. D. Stuart, Brunswick; Dr. and Mrs. E. S. Lin, Dr. and Mrs. T. S. Fleming, Dr. and Mrs. W. D. Chute, Dr. and Mrs. Ruel Miciano, Dr. and Mrs. G. R. Hudson, Dr. and Mrs. Roger Bautista, Dr. and Mrs. C. C. Cohrs, Dr. and Mrs. C. H. Lin, Dr. and Mrs. J. Will Fleming, Jr., Dr. and Mrs. R. V. Tompson, Dr. H. T. Lin, Dr. Antionio Aguilera, Dr. D. S. Shin, Dr. Josephine Baker and Dr. L. E. Huber, Moberly.

Guests were Dr. and Mrs. Lepold LaChance of Centralia, Dr. and Mrs. Howard J. McAlhany of Springfield and Mr. and Mrs. Royal O. Cooper of Jefferson City.

Dr. McAlhany, President of the Missouri State Medical Association, was the speaker for the evening. He discussed several actions taken by the House of Delegates at the MSMA Interim Session in Springfield in November.

Mr. Cooper, Executive Secretary of the MSMA, also spoke briefly. He emphasized the importance of physicians maintaining person contact with their legislators at the local level.

After a question-and-answer period, Dr. Tompson adjourned the meeting.

G. R. HUDSON, M.D., *Secretary*

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# In Memoriam

**Herbert B. Taylor,** M.D., 1325 S. Grand, St. Louis 63104; a graduate of George Washington University, 1954; member of St. Louis Medical Society; age 49; died Nov. 25, 1977.

**Charles Harlan Barnett,** M.D., 220 S. Springfield, Bolivar 65613; a graduate of the University of Tennessee, 1941; member of Dallas-Hickory-Polk-Dade County Medical Society; age 65; died Jan. 9, 1978.

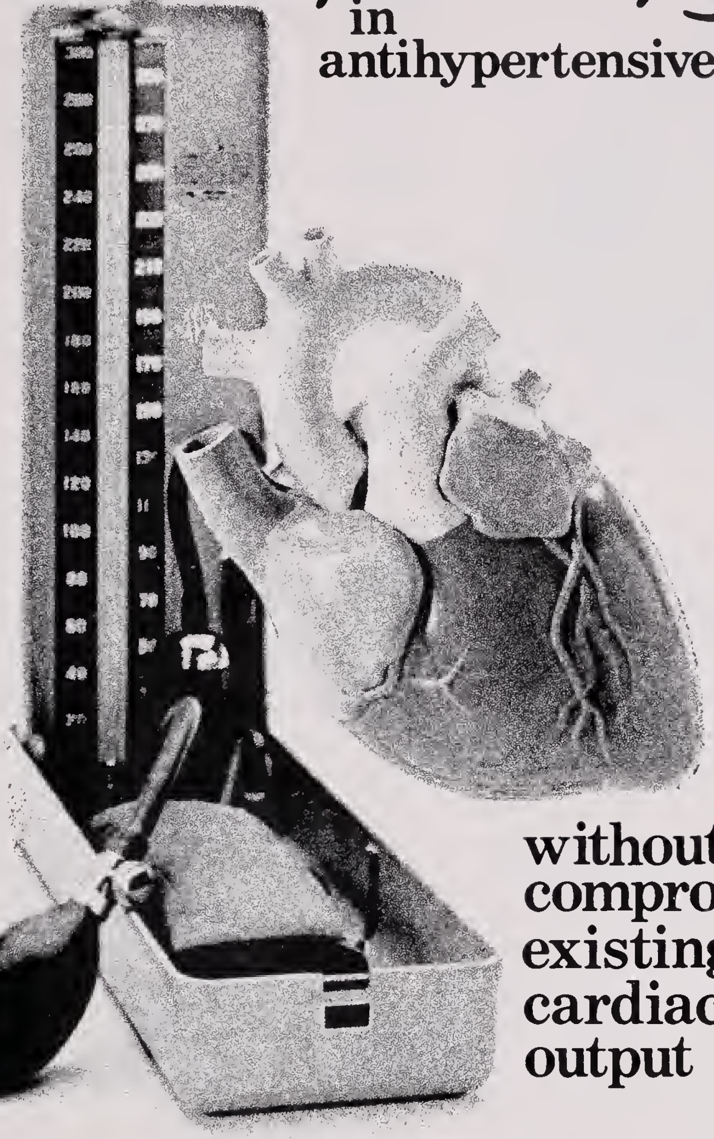
**James W. McPheeters, Sr.,** M.D., 330 N. 2nd, Poplar Bluff 63901; a graduate of the University of Louisville, 1915; member of Butler-Wayne-Ripley-Carter County Medical Society; age 86; died Jan. 12, 1978.

**Herbert Tuthill,** M.D., 202 S. Cook, Barrington, Ill. 60010; a graduate of the University of Kansas, 1908; member of Jackson County Medical Society; age 97; died Feb. 5, 1978.

**Ethel Watson,** M.D., 1539 Evanston, Independence 64052; a graduate of the University of Kansas, 1934; member of Jackson County Medical Society; age 89; died Feb. 5, 1978.

**Loys Charles Wilson,** M.D., P.O. Box 231, Kennett 63857; a graduate of St. Louis University, 1939; member of Dunklin County Medical Society; age 69; died Feb. 7, 1978.

A Dual Challenge
in
antihypertensive therapy



to lower
blood pressure
effectively...

without
compromising
existing
cardiac
output

n hypertension
ABLETS: 250 mg, 500 mg, and 125 mg

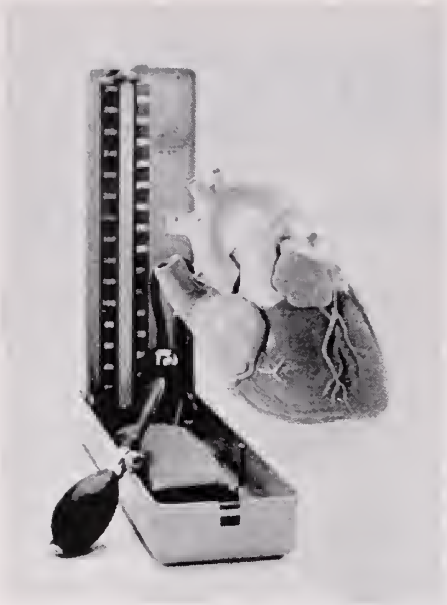
**ALDOMET® (METHYLDOPA | MSD)**

helps lower blood pressure effectively...
usually with no direct effect on
cardiac function–cardiac output
is usually maintained

ALDOMET is contraindicated in active hepatic disease, hypersensitivity to the drug, and if previous methyldopa therapy has been associated with liver disorders.
It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. For more details see the brief summary of prescribing information.

**For a brief summary of prescribing information, please see following page.**

MSD
MERCK
SHARP&
DOHME



in hypertension

ALDOMET®

(METHYLDOPA|MSD)

helps lower
blood pressure
effectively...
usually with no
direct effect on
cardiac function–
cardiac output is
usually maintained

**Contraindications:** Active hepatic disease, such as acute hepatitis and active cirrhosis; if previous methyldopa therapy has been associated with liver disorders (see Warnings); hypersensitivity.

**Warnings: It is important to recognize that a positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. The rare occurrences of hemolytic anemia or liver disorders could lead to potentially fatal complications unless properly recognized and managed. Read this section carefully to understand these reactions.**

With prolonged methyldopa therapy, 10% to 20% of patients develop a positive direct Coombs test, usually between 6 and 12 months of therapy. Lowest incidence is at daily dosage of 1 g or less. This on rare occasions may be associated with hemolytic anemia, which could lead to potentially fatal complications. One cannot predict which patients with a positive direct Coombs test may develop hemolytic anemia. Prior existence or development of a positive direct Coombs test is not in itself a contraindication to use of methyldopa. If a positive Coombs test develops during methyldopa therapy, determine whether hemolytic anemia exists and whether the positive Coombs test may be a problem. For example, in addition to a positive direct Coombs test there is less often a positive indirect Coombs test which may interfere with cross matching of blood.

At the start of methyldopa therapy, it is desirable to do a blood count (hematocrit, hemoglobin, or red cell count) for a baseline or to establish whether there is anemia. Periodic blood counts should be done during therapy to detect hemolytic anemia. It may be useful to do a direct Coombs test before therapy and at 6 and 12 months after the start of therapy. If Coombs-positive hemolytic anemia occurs, the cause may be methyldopa and the drug should be discontinued. Usually the anemia remits promptly. If not, corticosteroids may be given and other causes of anemia should be considered. If the hemolytic anemia is related to methyldopa, the drug should not be reinstituted. When methyldopa causes Coombs positivity alone or with hemolytic anemia, the red cell is usually coated with gamma globulin of the IgG (gamma G) class only. The positive Coombs test may not revert to normal until weeks to months after methyldopa is stopped.

Should the need for transfusion arise in a patient receiving methyldopa, both a direct and an indirect Coombs test should be performed on his blood. In the absence of hemolytic anemia, usually only the direct Coombs test will be positive. A positive direct Coombs test alone will not interfere with typing or cross matching. If the indirect Coombs test is also positive, problems may arise in the major cross match and the assistance of a hematologist or transfusion expert will be needed.

Fever has occurred within first 3 weeks of therapy, occasionally with eosinophilia or abnormalities in liver function tests, such as serum alkaline phosphatase, serum transaminases (SGOT, SGPT), bilirubin, cephalin cholesterol flocculation, prothrombin time, and bromsulphalein retention. Jaundice, with or without fever, may occur, with onset usually in the first 2 to 3 months of therapy. In some patients the findings are consistent with those of cholestasis. Rarely fatal hepatic necrosis has been reported. These hepatic changes may represent hypersensitivity reactions; periodic determination of hepatic function should be done particularly during the first 6 to 12 weeks of therapy or whenever an unexplained fever occurs. If fever and abnormalities in liver function tests or jaundice appear, stop therapy with methyldopa. If caused by methyldopa, the temperature and abnormalities in liver function characteristically have reverted to normal when the drug was discontinued. Methyldopa should not be reinstituted in such patients.

Rarely, a reversible reduction of the white blood cell count with primary effect on granulocytes has been seen. Reversible thrombocytopenia has occurred rarely. When used with other antihypertensive drugs, potentiation of antihypertensive effect may occur. Patients should be followed carefully to detect side reactions or unusual manifestations of drug idiosyncrasy.

*Pregnancy and Nursing:* Use of any drug in women who are or may become pregnant or intend to nurse requires that anticipated benefits be weighed against possible risks; possibility of fetal injury or injury to a nursing infant cannot be excluded. Methyldopa crosses the placental barrier, appears in cord blood, and appears in breast milk.

**Precautions:** Should be used with caution in patients with history of previous liver disease or dysfunction (see Warnings). May interfere with measurement of: urinary uric acid by the phosphotungstate method, serum creatinine by the alkaline picrate method, and SGOT by colorimetric methods. Since methyldopa causes fluorescence in urine samples at the same wavelengths as catecholamines, falsely high levels of urinary catecholamines may be reported. This will interfere with the diagnosis of pheochromocytoma. It is important to recognize this phenomenon before a patient with a possible pheochromocytoma is subjected to surgery. Methyldopa is not recommended for patients with pheochromocytoma. Urine exposed to air after voiding may darken because of breakdown of methyldopa or its metabolites.

Stop drug if involuntary choreoathetotic movements occur in patients with severe bilateral cerebrovascular disease. Patients may require reduced doses
anesthetics; hypotension occurring during anesthes
usually can be controlled with vasopressors. Hype
tension has recurred after dialysis in patients
methyldopa because the drug is removed by th
procedure.

**Adverse Reactions:** *Central nervous system:* Sed
tion, headache, asthenia or weakness, usually ear
and transient; dizziness, lightheadedness, sympton
of cerebrovascular insufficiency, paresthesias, parki
sonism, Bell's palsy, decreased mental acuity, involu
tary choreoathetotic movements; psychic distu
bances, including nightmares and reversible mi
psychoses or depression.

*Cardiovascular:* Bradycardia, aggravation of angi
pectoris. Orthostatic hypotension (decrease da
dosage). Edema (and weight gain) usually relieved
use of a diuretic. (Discontinue methyldopa if eden
progresses or signs of heart failure appear.)

*Gastrointestinal:* Nausea, vomiting, distention, co
stipation, flatus, diarrhea, mild dryness of mouth, so
or "black" tongue, pancreatitis, sialadenitis.

*Hepatic:* Abnormal liver function tests, jaundice, liv
disorders.

*Hematologic:* Positive Coombs test, hemolytic anemi
Leukopenia, granulocytopenia, thrombocytopeni
Positive tests for antinuclear antibody, LE cells, a
rheumatoid factor.

*Allergic:* Drug-related fever, lupus-like syndror
myocarditis.

*Other:* Nasal stuffiness, rise in BUN, breast enlarg
ment, gynecomastia, lactation, impotence, decreas
libido, dermatologic reactions including eczema a
lichenoid eruptions, mild arthralgia, myalgia.

**Note:** Initial adult dosage should be limited to 500
daily when given with antihypertensives other th
thiazides. Tolerance may occur, usually between se
ond and third months of therapy; increased dosage
adding a diuretic frequently restores effective contr
Patients with impaired renal function may respond
smaller doses. Syncope in older patients may be
lated to increased sensitivity and advanced
teriosclerotic vascular disease; this may be avoid
by lower doses.

**How Supplied:** Tablets, containing 125
methyldopa each, in bottles of 100; Tablets, contain
250 mg methyldopa each, in single-unit packages
100 and bottles of 100 and 1000; Tablets, contain
500 mg methyldopa each, in single-unit packages
100 and bottles of 100 and 500.

*For more detailed information, consult your M*
*representative or see full prescribing informati*
*Merck Sharp & Dohme, Division of Merck & Co., In*
*West Point, Pa. 19486* J6AM07R1(7

**MSD** MERCK SHARP & DOHME

# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

**Ed Bixby Institute for Postgraduate Education**
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

| | |
|---|---|
| Apr. 5 | Hematology |
| June 2 | Drug Actions and Interactions |
| Aug. 2 | Anxiety, Depression and Psychosexual Problems |

**University of Missouri-Columbia**
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

| | |
|---|---|
| Mar. 22-23 | Common Problems in Cardiology |
| Apr. 4-5 | Primary Pediatrics for the Primary Physician |
| Apr. 6-7 | 24th Annual Urology Seminar (Kansas City) |
| Apr. 25 | Pediatrics Refresher Course—1978 |
| Apr. 27 | A Social Learning Approach to Depression (Missouri Institute of Psychiatry, St. Louis) |
| Apr. 29 | Annual Day of Clinical Radiology |
| May 2-3 | Sports Medicine Conference |
| May 10 | Stroke |
| May 31-June 1 | Fifth International Symposium on Intestinal Microecology |
| Aug. 10-11 | Workshop in Soft Tissue Surgery |

**Mercy-Baptist Eye Seminars**
St. John's Mercy Medical Center
615 S. New Ballas Rd., St. Louis 63141
*Contact:* Richard B. Oglesby, M.D.

| | |
|---|---|
| Apr. 2 | Annual Spring Seminar—Highlights of Ophthalmology |

**Ellis Fischel State Cancer Hospital—Cancer Research Center**
115 Business Loop 70 West, Columbia 65201
(314) 449-2711
*Contact:* Carlos Perez-Mesa, M.D., Program Coordinator

| | |
|---|---|
| Apr. 15 | New Vistas in Cancer of the Breast |

**The Edward Mallinckrodt Institute of Radiology—Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| Apr. 10 | Newer Aspects of Neuroradiology |
| May 8 | Hematologic Bone Disease |
| May 25-26 | Fifth International Symposium on Intestinal Microecology |
| Aug. 10-11 | Workshop in Soft Tissue Surgery (Contact J. Regan Thomas, M.D., Section of Otolaryngology) |

**University of Kansas College of Health Sciences**
Division of Continuing Education
Rainbow at Olathe Blvd., Kansas City, Kan. 66103
(913) 588-7130

| | |
|---|---|
| Mar. 16-17 | Rehabilitation Needs of the Cancer Patient |
| Apr. 3-4 | 29th Annual Postgraduate Symposium on Ophthalmology—Ocular Manifestations of Systemic Disease |
| Apr. 7-9 | 29th Annual Postgraduate Symposium on Anesthesiology |

**St. John's Mercy Medical Center**
615 S. New Ballas Rd., St. Louis 63141
(314) 569-6000
*Contact:* James G. Blythe, M.D.

| | |
|---|---|
| May 11-12 | Tenth Annual Matt Weis Symposium—Endocrinology and Infertility in Obstetrics and Gynecology |

**University of Missouri-Kansas City School of Medicine—Kansas City Southwest Clinical Society**
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
*Contact:* Alta Bingham

| | |
|---|---|
| Apr. 6-8 | Update for the Primary Care Physician |
| Apr. 20-21 | Surgical Techniques |
| May 4-6 | Seminar: Update in Obstetrics and Gynecology |
| May 19-20 | The Long Weekend—Cardiovascular Disease I and II |
| June 1-2 | Symposium on Physical Fitness |

*(Continued on next page)*

*(CME Continued)*

**Washington University School of Medicine**
**Continuing Medical Education**
**Box 8063, 660 S. Euclid Ave., St. Louis 63110**
**(314) 367-9673**
***Contact:* Loretta Giacoletto**

| | |
|---|---|
| May 3-5 | Current Topics in Infectious Diseases |
| Apr. 6-7 | Venous and Arterial Thrombosis: Current Status of Diagnosis, Prevention and Therapy |
| Apr. 13-14 | Fifth Annual Symposium on Ob-Gyn |
| Apr. 17-18 | Hysteria in Children |
| April 20 | Hypertension Update |
| May 18 | Third Annual Symposium on Surgical Problems in Children |
| May 19-20 | Neuromuscular Diseases |
| Nov. 10-12 | Fifth Annual Symposium—Anesthesia and the Geriatric Patient |

**American College of Obstetricians and Gynecologists**
**One E. Wacker Dr., Chicago, Ill. 60601**
***Contact:* ACOG**

| | |
|---|---|
| Oct. 20-21 | Workshop on Practice Productivity |

**Greene County Medical Society**
**223 Professional Bldg., Springfield 65806**
**(417) 869-2531**
***Contact:* James E. Thompson, Jr., Executive Director**

| | |
|---|---|
| Sept. 29 | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

**Baptist Memorial Hospital**
**6601 Rockhill Rd., Kansas City 64131**
***Contact:* Margery B. Hartsock, Director of Public Relations (816) 316-3500, Ext. 7230**

| | |
|---|---|
| May 9 | 16th Annual Pediatric Seminar—Pediatric Emergencies |

**Freeman Hospital**
**1102 W. 32nd, Joplin 64801**
***Contact:* Joy Barnett, CME Coordinator**

| | |
|---|---|
| Apr. 8 | Infectious Disease Seminar |

**St. Luke's Hospital**
**Foundation for Medical Education and Research**
**Wornall Rd. at 44th, Kansas City 64111**
**(816) 932-2047**
***Contact:* Robert Newman, M.D., Program Director**

| | |
|---|---|
| Aug. 3-5 | Seminar: Understanding and Treating the Adolescent Female<br>(Vail, Colorado) |

BRIEF SUMMARY OF
PRESCRIBING INFORMATION

**ANTIMINTH**® (pyrantel pamoate)
**ORAL SUSPENSION**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 $\mu$g/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

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**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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ORAL SUSPENSION

a drug of choice in pinworm infections

Please see brief summary of prescribing information on facing page.

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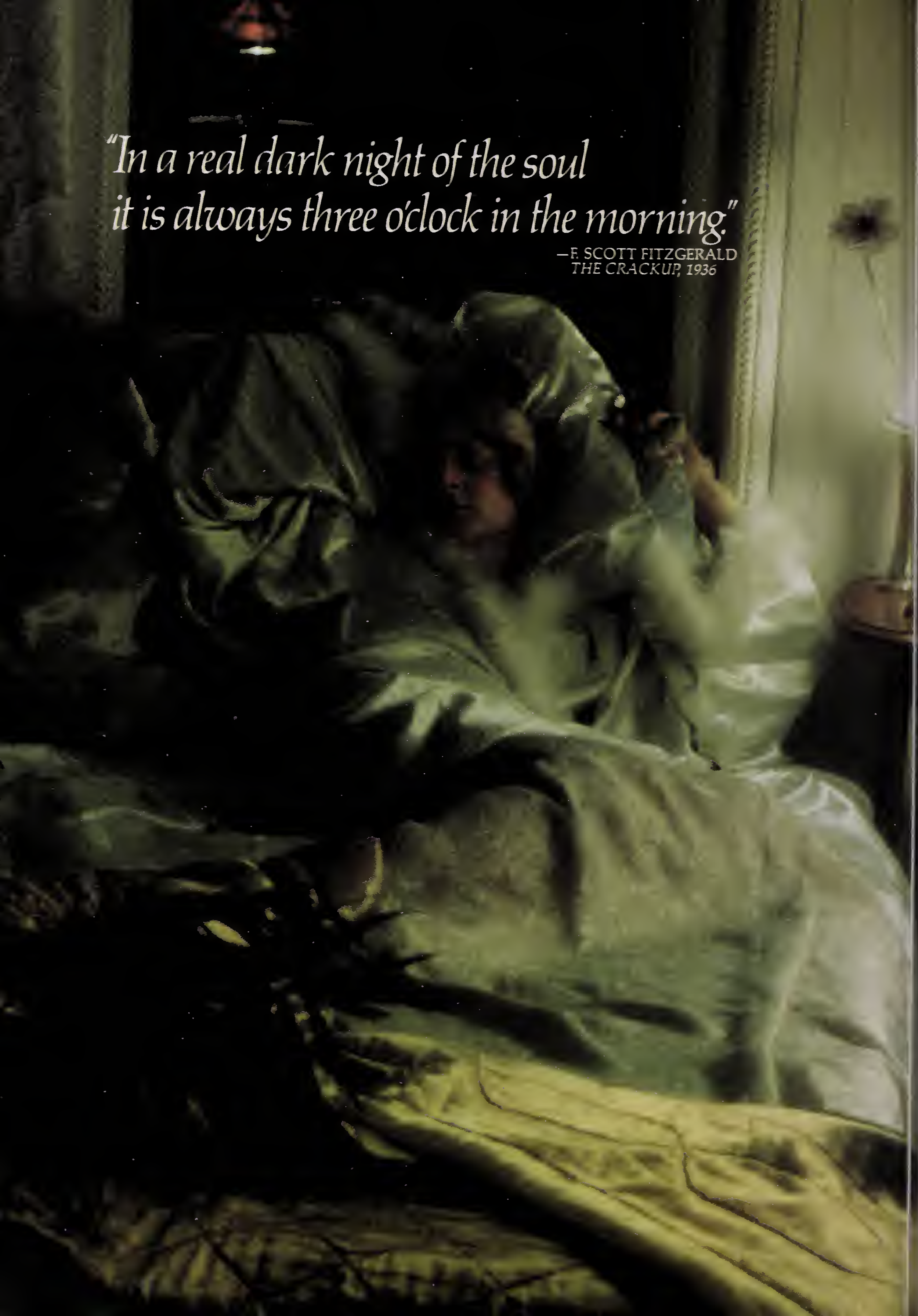

*"In a real dark night of the soul*
*it is always three o'clock in the morning."*

—F. SCOTT FITZGERALD
*THE CRACKUP, 1936*

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[1] Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

**Brief Summary of Prescribing Information**
**ADAPIN**® (doxepin HCl) Capsules

**Indications**—Relief of symptoms of anxiety and depression.

**Contraindications**—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

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Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

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**Precautions**—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

**Adverse Reactions**—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

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**Dosage and Administration**—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

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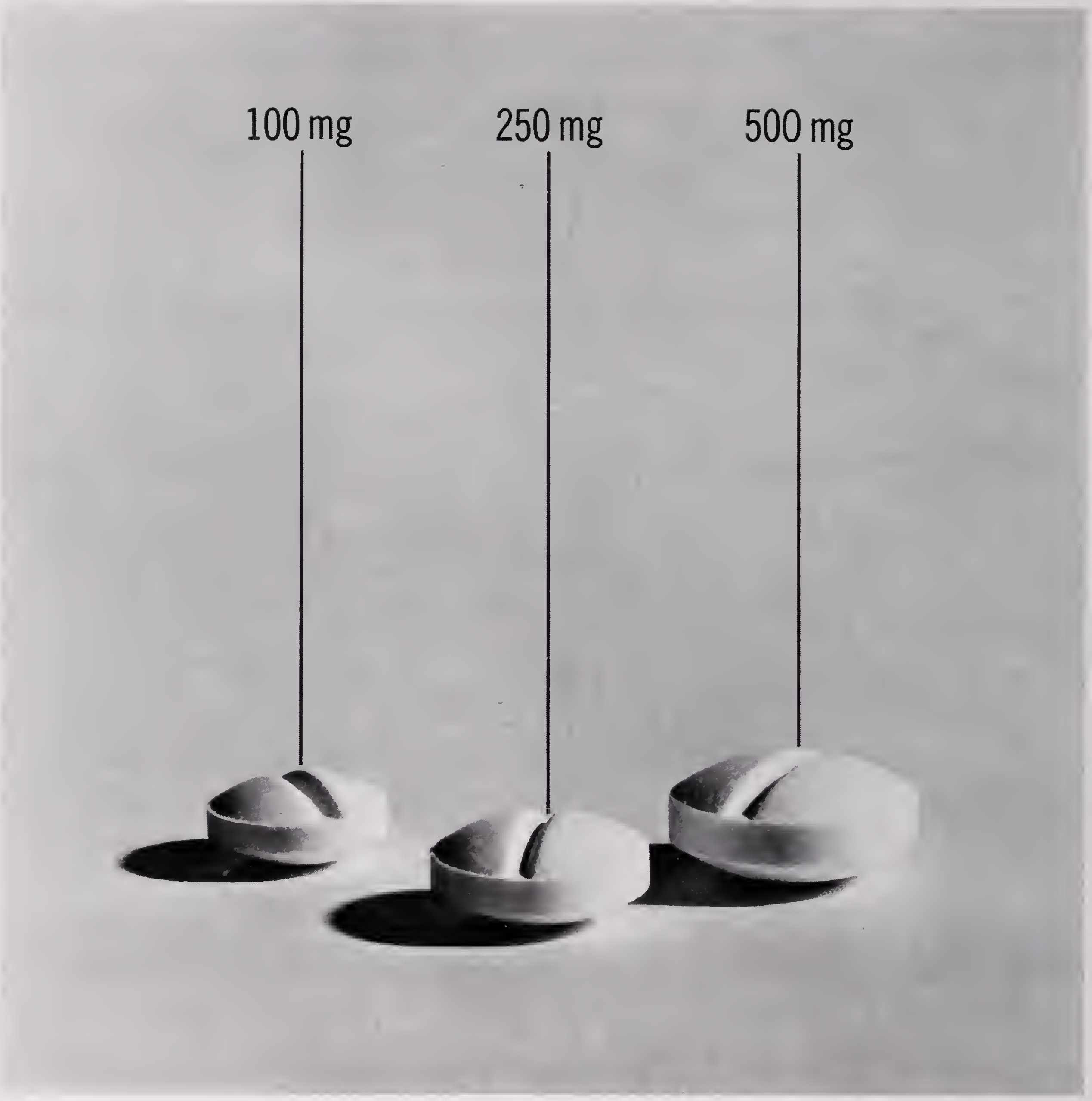
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Missouri Medicine

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BARRY C. WOOD, M.D., J. N. SHARMA, M.D.
*and* THOMAS T. CROUCH, M.D., *Kansas City*

# Peritoneal Dialysis in Hyperuricemic Acute Renal Failure

## *Case Report*

Acute renal failure due to hyperuricemia is a well recognized complication of the treatment of lymphoma and leukemias.[1-3] Hyperuricemia has been reported in other solid tumors[4, 5] and Crittenden reported acute renal failure secondary to hyperuricemia due to spontaneous necrosis of an adenocarcinoma.[6] We present a report of a case of chemotherapy-induced hyperuricemic renal failure which responded well to peritoneal dialysis.

### Case Report

A 62-year-old white man was admitted for chemotherapy with surgically proven stage IV T-cell lymphoma (electron microscopic diagnosis) involving the mediastinum and bone marrow. He was given 1 mg of vincristine sulfate (Oncovin), 100 mg of prednisone and 400 mg of cyclophosphamide (Cytoxan) on the first hospital day. Severe nausea, vomiting and diarrhea followed. Consequently, the second dose of chemotherapy was held. Although uric acid was not measured on admission, two weeks prior to admission it had been 9.7 mg/100 ml. On the third hospital day, urine output was less than 200 cc for 12 hours, and we were asked to see the patient.

Blood pressure at that time was 160/90 supine with diminished skin turgor, dry tongue and flat neck veins. The patient complained of chilling. There was no edema. Urine was pink. Chest x-ray revealed marked decrease in mediastinal widening compared to the film two weeks prior.

Serum creatinine was found to be 5.6 mg/100 ml (renal function two weeks prior had indicated serum creatinine to be 1.2 mg/100 ml) and rose to 7.4 mg/100 ml. Uric acid was 43 mg/100 ml, rising to 50.5 mg/100 ml on the fourth hospital day. Lactic dehydrogenase was 5700 mic/%. The patient had a mild acidosis with a pH of 7.32 and normal lactate level. $CO_2$ content was 6. Phosphorus value rose to 28 mg/100 ml on the third hospital day and was then controlled with oral amphogel. Hemoglobin level dropped from 10.4 gm/100 ml on admission to 6.5 mg/100 ml and platelets from 71,000 to 19,000. White blood cell count dropped to 1400 and the patient was placed in isolation. Urinalysis revealed pH of 5.0, many red blood cells, 11-20 white blood cells, +protein and many uric acid crystals. Urine and blood cultures remained negative. Urine/plasma osmolality was 271/320 on the fourth hospital day.

Allopurinol was started at 300 mg per day. Because of severe oliguria and inability to alkalinize the urine

**Hyperuricemia with secondary acute renal failure is a well recognized complication of the treatment of lymphomas and leukemias with chemotherapy. Prechemotherapy treatment with allupurinol, alkalinization of urine and hydration with high urine flows may prevent renal failure. If these measures do not prevent renal failure, peritoneal dialysis is a safe and efficient means of lowering serum uric acid and treating the accompanying renal failure. The authors are from the Department of Dialysis and Transplantation, St. Luke's Hospital.**

despite intravenous fluid replacement and bicarbonate administration, peritoneal dialysis was initiated on the fifth day. It was continued for 72 hours with rapid decrease in uric acid, blood urea nitrogen (BUN) and creatinine. Urine output began increasing. By the ninth hospital day, uric acid value was 7.1 mg/100 ml, BUN was 14 mg/100 ml, creatinine was 2.1 mg/100 ml and platelets had increased to 73,000 (Table 1).

The patient was discharged with this level of renal function to recover further before reinitiating chemotherapy. He was sent home on a regimen of allopurinol 300 mg daily.

## Discussion

Prognosis in acute renal failure secondary to hyperuricemia is usually good although this is, to our knowledge, the highest uric acid reported with reversible renal failure. Although conservative therapy with massive diuretics has been used, hemodialysis is reported to be most effective in removal of uric acid.[7] Peritoneal dialysis has been reported with excellent success.[7, 8] Our calculated clearance across the peritoneal membrane of uric acid was 8.4 ml/min which is in agreement with other reports.

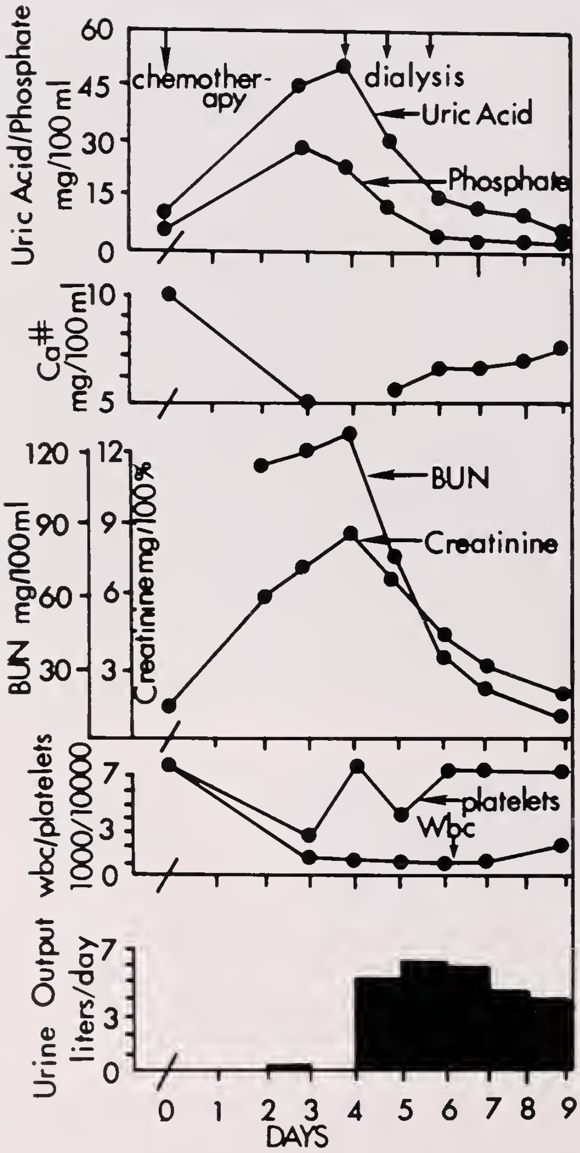

Table 1. Clinical course of patient with acute renal failure showing response to peritoneal dialysis.

Our observations support Kjellstrand's observations that a high phosphorus-to-uric acid ratio occurs when acute renal failure develops secondary to hyperuricemia as a complication of chemotherapy with precipitous drops in peripheral white blood cell counts.[7] This was observed in spite of the patient's initial relatively low white blood cell count and of our vigorous treatment of the hyperphosphatemia with oral binding agents.

Because tubular obstruction with uric acid crystals appears to be the main pathogenetic mechanism of acute renal failure,[9, 10] prompt hydration, alkalinization and reduction of plasma uric acid leads to rapid reversibility of renal failure. Pretreatment with allopurinol of patients with malignancies who are to have chemotherapy may be an important adjuvant to preventing renal failure, but despite pretreatment with alkalinization, potent diuretics, hydration and allopurinol, acute renal failure has still been reported.

We maintain that these adjuvant therapies be used prior to chemotherapy whenever possible in order to prevent acute renal failure while at the same time, closely observing renal function for possible early intervention with dialysis. Although hemodialysis is ten to 20 times more efficient than peritoneal dialysis in the removal of uric acid, we feel that peritoneal dialysis is a safe, effective means of reducing plasma uric acid levels. It can be instigated quickly in centers where hemodialysis is not readily available at the same time allopurinol, hydration and alkalinization are being undertaken.

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**CHARLES M. LUETJE, M.D.,** ***Kansas City***

# 'Nerve Hearing Loss'

## *You Have to Live With It or Do You?*

### MENIERE'S DISEASE

THE SALIENT FEATURES of Meniere's disease are fluctuating sensori-neural hearing loss, fullness or pressure in the affected ear, roaring tinnitus, whirling vertigo and associated nausea and vomiting.[1] There usually is accompanying distortion of sound and diplacusis. The attacks last from minutes to hours and spontaneously subside.

Considerable controversy exists as to the treatment of Meniere's disease, including the medical treatment, dietary treatment and surgery. There has been less emphasis toward medical treatment and more emphasis toward surgery over the past few years. Previous destructive surgical procedures have been replaced by conservative nondestructive surgical procedures.[2, 3]

The goal of any treatment should be the elimination of vertigo and preservation or stabilization of hearing.

### CASE REPORT

A 41-year-old woman developed two bouts of whirling vertigo 16 years ago; both lasted a few hours. She was asymptomatic until four years prior to my seeing her, at which time she developed fluctuating distortion of sound, fullness and pressure, tinnitus and fluctuating sensori-neural hearing loss in the right ear. This was accompanied by whirling vertigo with nausea and vomiting and with the attacks occurring as often as twice a day or several per week. The attacks came without warning but were usually aggravated by positional change. Multiple medical treatments were unsuccessful. Tinnitus had become low pitched. Internal auditory canal x-rays were normal and marked reduced vestiblar response on the right and left beating spontaneous nystagmus on the left were present on ENG. A preoperative audiogram revealed a flat 65 decibel sensori-neural loss with 76% speech discrimination, intact stapedial reflex without decay and evidence of recruitment in the right ear.

The patient underwent a right endolymphatic subarachnoid shunt and, at the latest follow-up, has reduced tinnitus, absence of vertiginous symptoms and hearing improvement (Fig. 1).

This patient demonstrates a case of Meniere's disease refractive to multiple medical treatments. She was an ideal candidate for a conservative surgical management and has had an excellent result. She felt totally incapacitated by her symptoms and feared an attack of Meniere's disease.

### SUDDEN SENSORI-NEURAL HEARING LOSS

Sudden sensori-neural hearing loss, whether partial or complete, is dramatic and comes without warning. Considerable confusion exists as to what to do about these patients. Often the patient feels the hearing will improve spontaneously and does not seek medical attention until days or weeks later. At that point, the patient is usually told that nothing can be done about it.

Although the exact cause of sudden sensori-neural hearing loss is not known, vasodilator treatment is helpful in 30% to 40% of the cases whether it be viral, vascular spasm or vascular obstruction.[4]

The patient should be evaluated by audiometric testing, vestibular testing, x-rays of the petrous pyramid, glucose tolerance test, FTA, lipoprotein electrophoresis and other metabolic studies. One percent of the patients with sudden sensori-neural hearing loss will have an acoustic neuroma.[4]

**Even though sensori-neural hearing loss is generally considered to be untreatable, many cases are due to specific etiologies and should be treated. The author discusses seven cases of "nerve hearing loss" due to Meniere's disease, sudden sensori-neural hearing loss, acoustic neuroma, congenital Lues, traumatic rupture of the round-window membrane, posterior fossa meningioma and primary (congenital) cholesteatoma of the petrous apex.**

**Dr. Luetje is in the private practice of otology and neuro-otology.**

**This paper was originally presented at the 1977 Annual Meeting of the Missouri Chapter, American College of Surgeons.**

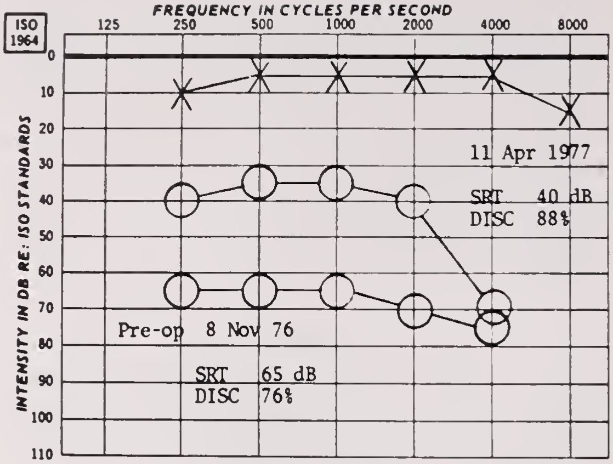

**Fig. 1** Preoperative and postoperative audiograms.

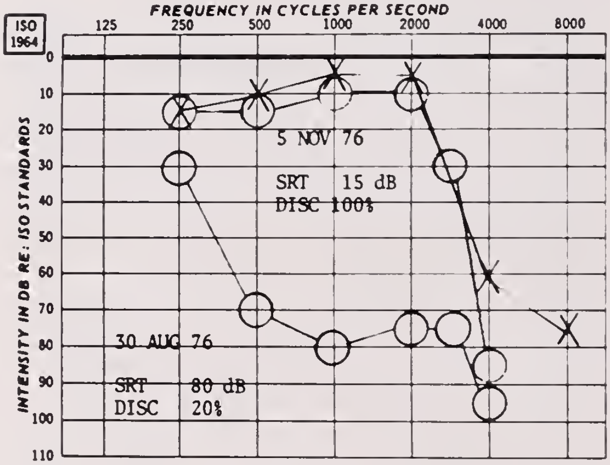

**Fig. 2** Pretreatment and posttreatment audiograms.

## CASE REPORT

A 44-year-old white man presented with right sudden sensori-neural hearing loss. The patient sustained a feeling of pressure and fullness with high-pitched tinnitus in the right ear and noticeable hearing loss. He became unable to use the telephone with the right ear and there was no history of straining or barometric pressure change. There was no history of vertigo.

An audiometric evaluation indicated 80 decibels SRT with a 20% speech discrimination score (Fig. 2). An electronystagmogram (ENG) revealed normal vestibular function; internal auditory canal x-rays and a five-hour glucose tolerance test were normal. While in the hospital for three days, the patient was treated intravenously with 2.75 mg of histamine IV twice daily, carbon dioxide inhalation twice daily, niacin in flushing doses twice daily, 30 mg of propantheline bromide (Pro-Banthine) twice daily and lipoflavenoids. He noticed improvement in hearing while receiving this medical treatment and was discharged on a regimen of niacin, lipoflavenoids, sublingual histamine and Pro-Banthine. Four days following the institution of treatment, his audiogram had returned to normal with exception of the high frequencies.

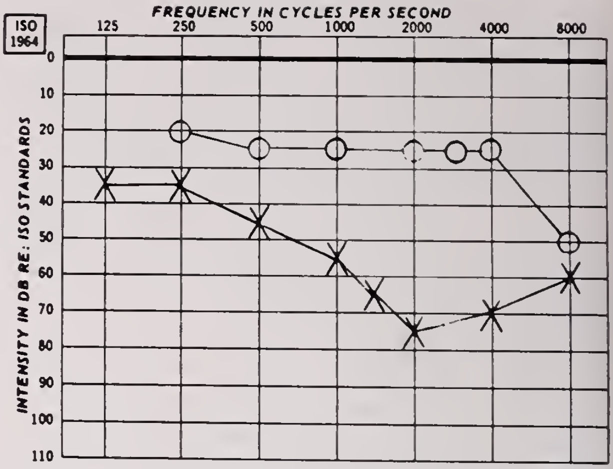

**Fig. 3** Audiometric findings in 1.5 cm acoustic neuroma.

This case represents a patient with sudden sensori-neural hearing loss without associated vertigo. The association of vertigo carries a worse prognosis for return of hearing.[1] The patient was a nonsmoker, there was no history of diabetes and his hearing has been maintained to date. All medications were discontinued in November, 1976.

## ACOUSTIC NEUROMA

Acoustic neuromas are benign tumors which arise from the vestibular nerves and usually within the internal auditory canal. As they enlarge, they cause hearing loss, tinnitus and vertigo with compression of the eighth cranial nerve in the internal auditory canal. As the tumor enlarges, it progresses into the cerebello-pontine angle and, when large enough, can produce fifth-nerve findings.

The first symptoms of acoustic neuroma are hearing loss or tinnitus with or without associated balance disturbance.[5] Any patient with unilateral hearing loss or tinnitus should be investigated for the possibilities of an acoustic neuroma. The balance disturbance is more of a dysequilibrium and is not a true vertigo such as seen with Meniere's disease.

The minimum work-up for the evaluation of the patient with unilateral sensori-neural hearing loss consists of audiogram including impedance audiometry, x-rays of the internal auditory canal and electronystagmogram. If abnormalities exist with these, then considerable thought must be given to computerized cranial tomography to be followed by posterior fossa myelogram.

## CASE REPORTS

Case #1. This 52-year-old man developed tinnitus in the left ear in 1968. There was initial fluctuation of hearing in the left ear with progressive unilateral

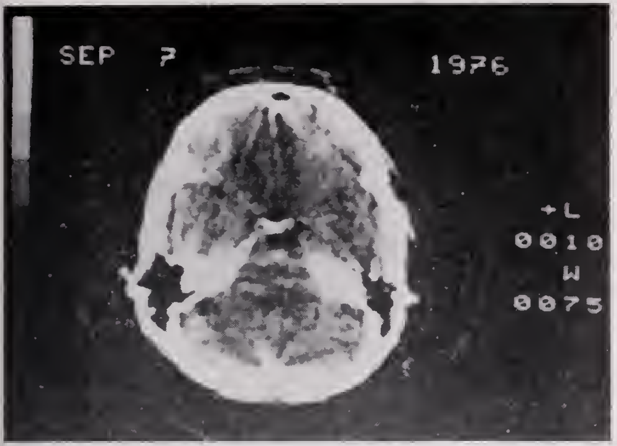

**Fig. 4** CT scan of patient with 1.5 cm acoustic neuroma. (Does not show tumor.)

sensori-neural hearing loss. The patient had absent stapedial reflexes with left unilateral weakness on vestibular testing (Fig. 3). X-rays of the internal auditory canal were abnormal and a computerized cranial scan revealed no evidence of tumor (Fig. 4). A posterior fossa myelogram revealed a 1 cm to 1.5 cm acoustic neuroma in the left internal auditory canal (Fig. 5).

On Oct. 13, 1976, the patient underwent translabyrinthine removal of a left 1 cm to 1.5 cm acoustic neuroma with preservation of facial function. There were no vital sign changes during surgery and the patient's postoperative course was unremarkable. He was discharged a week following surgery.

This case represents what appeared to be a noise-induced hearing loss in its early stages and there was fluctuating hearing in the left ear. Ultimately, the patient developed progressive sensori-neural hearing loss (which obviously was not noise induced), lost stapedial reflexes and had radiographic evidence of an acoustic neuroma. This was confirmed by a posterior fossa myelogram and surgery. In addition, this case points out the fact that an acoustic neuroma which is of small size, 1 cm to 1.5 cm, will not show on the enhanced computerized cranial tomography.

Case #2. This 36-year-old man developed hearing loss in the right ear and balance disturbance in 1972. He had dysequilibrium without true vertigo. X-rays indicated an enlarged right internal auditory canal and posterior fossa myelogram done a year prior to my seeing him and revealed a filling defect of 1.5 cm to 2 cm in the right cerebello-pontine angle and internal auditory canal.

The patient was lost to follow-up for a period of about nine months and then was referred to my office. The pantopaque study was reviewed and found to be technically inferior. Computerized cranial tomography revealed a 3 cm to 4 cm tumor of the cerebello-pontine angle (Fig. 6). An ENG revealed absent caloric response in the right ear and an audiogram indicated absence of any speech reception threshold or speech discrimination.

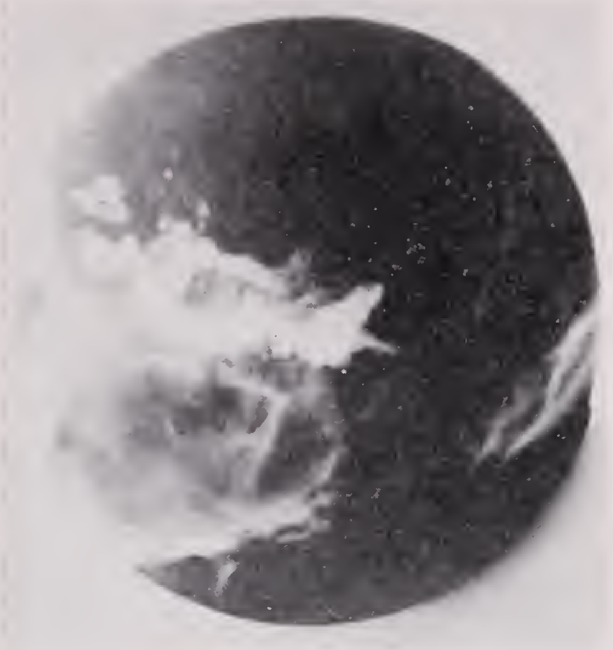

**Fig. 5** Stenner's view outlining 1.5 cm acoustic neuroma surrounded by 2 cc of pantopaque.

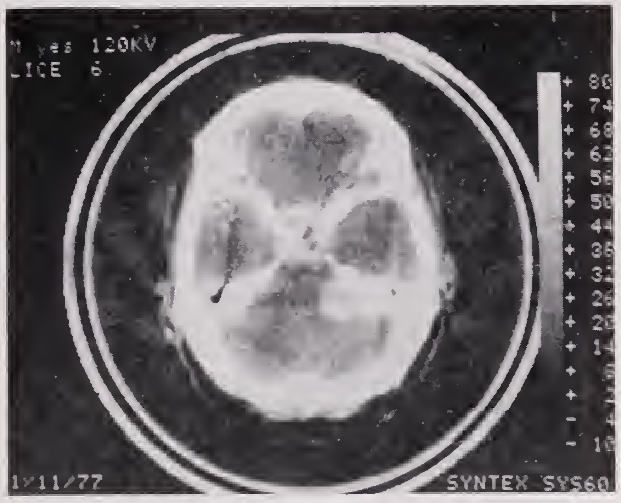

**Fig. 6** CT scan enhancing a 3-4 cm acoustic neuroma on the right.

The patient underwent right translabyrinthine removal of a 3 cm to 4 cm acoustic neuroma on Jan. 10, 1977. Postoperatively, he had normal facial function and no neurological deficit. He was able to return to work as a beer truck driver six weeks after surgery.

## Traumatic Rupture of Round Window Membrane

Traumatic rupture of the round window membrane or oval window membrane usually occurs with straining, changes in cerebral spinal fluid pressures, inner ear fluid pressures or barometric changes. The treatment of round window mem-

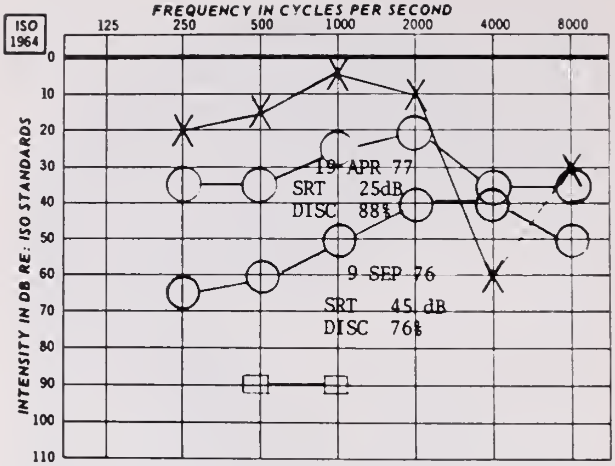

**Fig. 7** Preoperative and postoperative audiometric findings in a patient with rupture of round-window membrane.

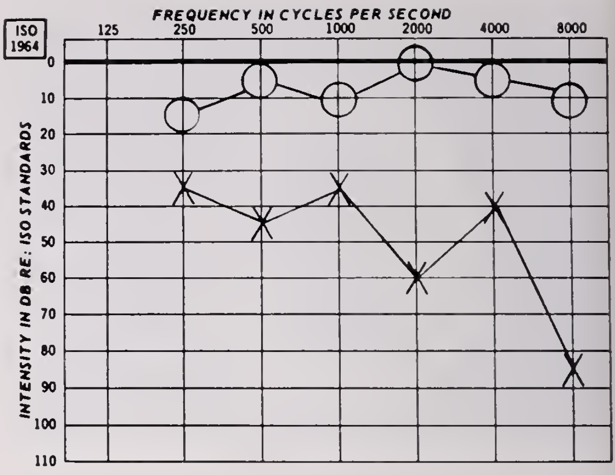

**Fig. 8** Audiogram of patient with a 5 cm posterior fossa meningioma.

brane rupture has varied from exploration of all sudden sensori-neural hearing losses to conservative management. Surgical exploration of the middle ear is a generally accepted treatment when there is a sudden sensori-neural hearing loss associated with definite straining, barometric pressure changes or other forceful activity.[6]

## Case Report

A 35-year-old white man came in complaining of sudden hearing loss of one week's duration in the right ear. The patient gave a history of having sneezed, blowing his nose and feeling something pop in the right ear with associated decrease of hearing in the same ear. This was nonfluctuant and he noted a sensation of water running in the right ear. There was distortion of sound and echo in the ear with slight tinnitus. The patient noted dysequilibrium the next day, but this lasted for only one day.

An audiometric evaluation revealed a right sensori-neural hearing loss worse in the lower frequencies with 45 decibel SRT and 76% speech discrimination score. Recruitment was present on impedance audiometry (Fig. 7).

The patient was hospitalized immediately at 5 PM and put at bed rest. He was taken to surgery the following morning where exploratory tympanotomy was performed. The stapes was inspected and was found to be completely normal with no egress of perilymph from around the oval window or footplate area. A pool of fluid was found immediately upon inspecting the round-window membrane area. This was aspirated very gently, and a round-window fistula was positively identified by drying completely the round-window niche and watching fluid reaccumulate in the depths of the niche. Perichondrium was removed from the tragus and used to repair the round-window fistula following scarifying the edges of the round-window niche. Postoperatively, the patient was treated with histamine (intravenous), niacin, lipoflavenoids and Pro-Banthine. He had no postoperative vertigo and was kept quiet for 48 hours after surgery.

An audiogram of seven months postoperatively revealed 15 decibel SRT and 80% speech discrimination score (Fig. 7).

This was a case of definite round-window membrane rupture which was associated with increased intrathoracic pressure change and, thereby, transmitted spinal fluid pressure change due to the patient's sneezing and blowing his nose. It is unknown why the patient had a round-window rupture on this particular occasion.

## Congenital Lues

Syphillis has been called the great imitator and there's no reason to change that at this point in medical history. Congenital Lues usually presents in the third, fourth or fifth decades of life and is a complete surprise to the patient. The symptoms seen by the otologist are that of fluctuating hearing loss and dizziness. A hallmark of the symptoms is discrimination of speech out of proportion to the sensori-neural hearing loss.[7]

## Case Report

A 43-year-old man was referred with balance problems and fluctuating hearing loss. Two years prior to my seeing this patient, he was hospitalized for "inner ear infection" of eight to 10 days duration. He could not keep his balance, was nauseated with vomiting and hearing was diminished in the right ear, which remained down. He was treated with an antiemetic (Antivert) and other medications that made him feel better. Over the past two years, the patient has had frequent attacks of bilateral fullness and pressure in his ears, vertigo, dysequilibrium, tinnitus and, at times, severe vertigo with nausea and vomiting. Between the bouts of vertigo, he has had fluctuating hearing loss and uses

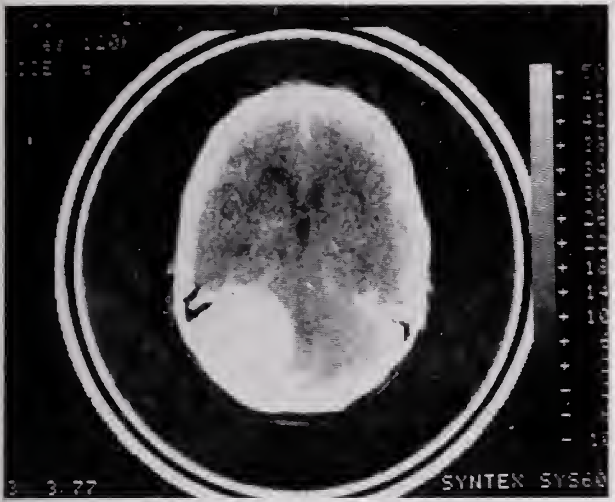

Fig. 9 CT scan enhancing a 5 cm posterior fossa meningioma.

a hearing aid in the right ear. He notices his symptoms are worse after the use of alcohol.

An audiometric evaluation indicated 20 and 15 decibels SRT, right and left ear respectively, with 68% speech discrimination score bilaterally. An electronystagmogram revealed reduced vestibular response in the right ear with direction fixed right beating nystagmus. Internal auditory canal x-rays were symmetrical; a five-hour glucose tolerance test was mildly elevated. Lipoprotein electrophoresis revealed type IV pattern. FTA was reactive on three separate occasions. A VDRL was not reactive in serum or spinal fluid. The patient was hospitalized and treated intravenously with 4 million units of penicillin every four hours and was started on a regimen of 60 mg of prednisone daily. He was treated in this manner for approximately one week.

Five days following the institution of treatment, hearing had increased in both ears with discrimination for speech 72% and 80%, right and left respectively. The patient was discharged on a regimen of decreasing doses of prednisone and will receive 1.2 million units of penicillin intramuscularly once a month for the next six months.

This case represents a pattern typical of congenital Lues as seen by the otologist. The hallmark is discrimination score out of proportion to the sensori-neural hearing loss, fluctuation of hearing, bilateral disease and dizziness. The histo-pathologic feature is obliterative endarteritis and round cell infiltrates softening and displacing the bony labyrinth.[8] The symptoms produced are not unlike those of Meniere's disease.

## Meningioma

Meningiomas of the posterior cranial fossa occur along the venous sinuses and archnoid granulations.[9] Hearing loss is produced by pressure against the eighth cranial nerve. These lesions enhance greatly on CT scan. Surgical removal should include their dural attachment.

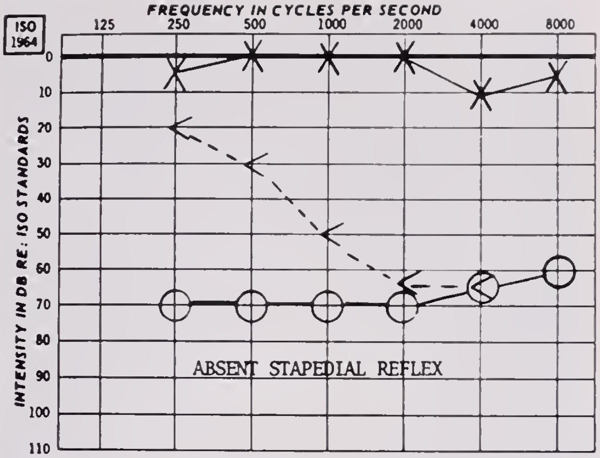

Fig. 10 Audiogram of patient with petrous apex cystic cholesteatoma on the right.

## Case Report

A 49-year-old woman complained of severe left occipital headaches and balance disturbance of four-years duration. Balance became worse in the past year and with frequent nausea. Hearing loss occurred in the left ear and was first noticed when using the telephone two to three months prior to referral.

An audiogram revealed severe left sensori-neural hearing loss and absence of speech discrimination. Stapedial reflex was absent on the left side (Fig. 8). Polytomography of the internal auditory canal was normal. A CT scan enhanced a 5 cm tumor on the left posterior to the internal auditory canal (Fig. 9).

The patient was operated on through a combined suboccipital, retrolabyrinthine approach. Total tumor removal was accomplished without additional neurological deficit except for 11th nerve paralysis felt to be reversible secondary to trauma during jugular vein ligation. The patient returned to work as a bank teller six weeks postoperatively.

The hearing loss in this patient was due to compression of the eighth cranial nerve and a late symptom. Yet, this is the symptom which led to the diagnosis. This case demonstrates an ominous sign in which the internal auditory canals are normal with clinical evidence of a retrocochlear lesion. In such cases, the lesion is often large and originates in the cerebello-pontine angle.

This tumor originated from the sigmoid sinus just below its junction with the superior petrosal sinus.

## Primary (Congenital) Cholesteatoma

Congenital cholesteatoma can occur as solitary lesions in the cerebello-pontine angle or as petrous

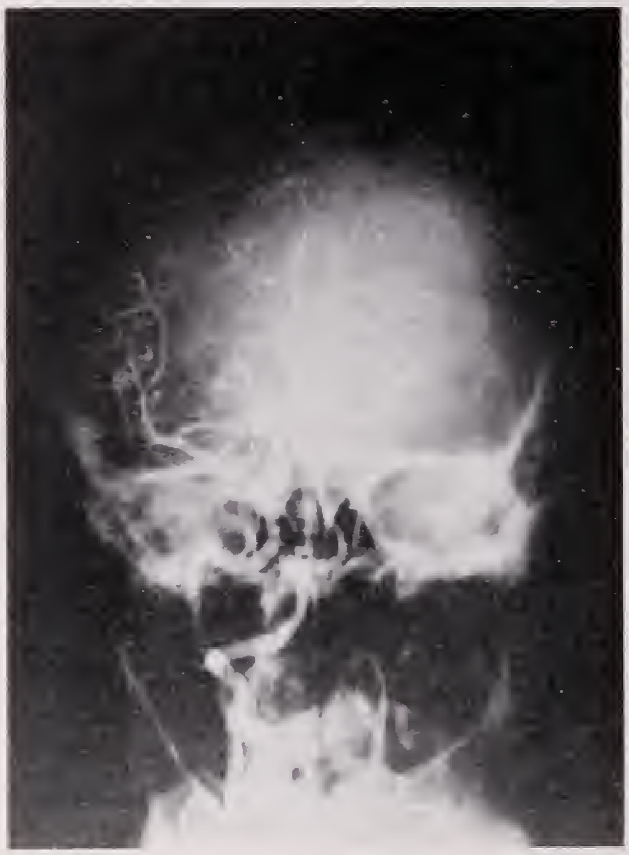

Fig. 11 Arteriogram of patient with petrous apex cystic cholesteatoma. Note proximity of petrous apex and carotid and a vascularity.

apex lesions spreading into the angle. Hearing loss is usually a late symptom, but clinical manifestations occur early. Petrous apex cholesteatoma may cause facial nerve irritation, facial twitching and paralysis in 73% of cases.[10]

## Case Report

A 35-year-old woman, a registered nurse, developed right Eustachian tube dysfunction some ten years ago. Six years ago, a permanent middle ear ventilation tube was successfully inserted. Sixteen months ago, a balance disturbance developed and was progressive. Eight months later, sensori-neural hearing loss developed in the right ear. Facial twitching became apparent four months ago.

An audiogram revealed severe sensori-neural hearing loss in the right ear with 24% speech discrimination and absent caloric response (Fig. 10). Facial sensation was reduced to pin prick on the right but corneal sensation was equal. X-rays revealed anterior wall erosion of the right internal auditory canal and on CT scan, a non-enhancing bony destruction of the right petrous apex. Linear tomography confirmed a destructive lesion of the petrous apex. An arteriogram confirmed the avascularity of the lesion (Fig. 11).

The patient underwent middle fossa removal of a cystic cholesteatoma which was extradural. It extended from the internal auditory canal in the posterior fossa, across the petrous apex, beneath the carotid artery, through the Eustachian tube and into the floor of the middle fossa. Extradural total removal was accomplished. Though the seventh and eighth cranial nerves were displaced posteriorly, no additional neurological deficit occurred postoperatively except for the lack of tearing due to division of the greater superficial petrosal nerve during tumor removal.

This case points out Eustachian tube dysfunction as the earliest symptom. Only as the tumor enlarged did it cause V, VII, VIII cranial nerve symptoms. The inflammatory response to the matrix of the cholesteatoma and posterior displacement of the VII and VIII nerves apparently caused the facial twitching.

## Summary

Seven cases in which pathology causes sensori-neural hearing loss have been described. Each of these has been treated and the patients' symptoms have been improved.

The author's challenge is to look carefully at the patient who comes to your office and complains of hearing loss. If it is a sensori-neural hearing loss, consider the possibilities and appropriately evaluate the patient.

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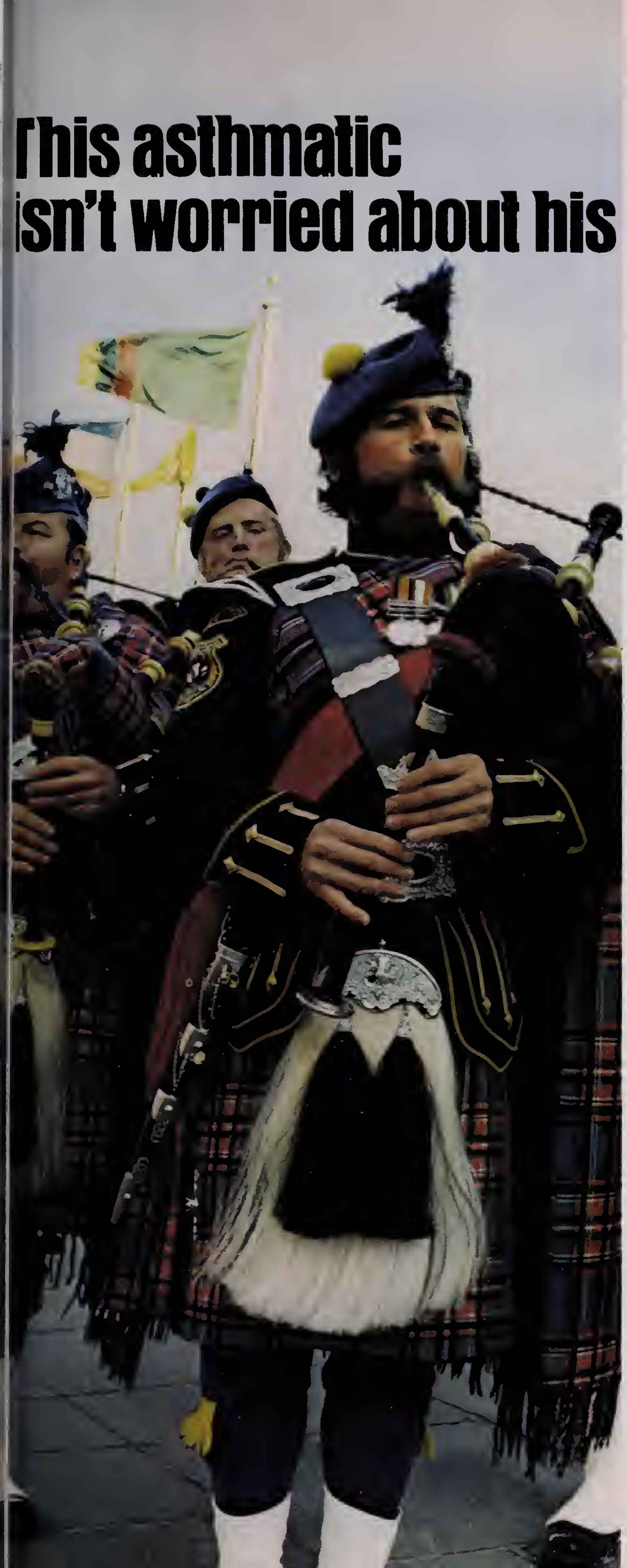

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**SHELLEY SANSBURY, M.S.P.H., SUSAN BRODARICK, M.S.**
*and* **DON DE SILVA,** *Clayton*

# Swine Influenza Program in St. Louis County

The operation of the St. Louis County Swine Influenza Immunization Program in 1976 involved the development of a vaccine distribution system, vaccine delivery system and surveillance and epidemiologic activities. 301,190 persons (48.5% of the target population) were immunized. Of these, 156,806 immunizations or 52.1% were provided by the Department of Community Health and Medical Care. Of the total number of persons receiving influenza immunizations under the program, 126,334 (41.9%) received bivalent vaccine for Victoria influenza as well as swine influenza. During the "flu season," 26 throatwashing specimens submitted to the Missouri Division of Health Virology Laboratory yielded three isolates of B/Hong Kong influenza. A successful immunization campaign, despite national controversy and subsequent absence of swine or Victoria influenza, is attributed to a direct assistance grant and considerable community volunteer support.

Four essential objectives of the St. Louis County Influenza Control Program were (1) to provide an efficient vaccine distribution system which would adequately provide both monovalent and bivalent vaccine and related supplies to the private and industrial sector as well as provide accountability for vaccine utilization, (2) to develop and implement a vaccine delivery system that would provide the appropriate population an equal opportunity to be immunized with maximum convenience, (3) to conduct necessary surveillance and epidemiology of influenza as well as vaccine-associated illness that might unforeseeably occur and (4) to manage to achieve these objectives without disrupting ongoing public health activities.

## Methods

Various demographic problems in St. Louis County were considered in approaching the planning of this particular project. There are 94 separate incorporated municipalities and 23 public school districts located in St. Louis County which had an estimated population of 972,000 based on the DOCHMC Annual Report of 1974. Due to these demographic considerations and an insufficient communicable disease control budget, a direct assistance grant application incorporating an operational plan and budget was submitted to the Missouri Division of Health. Such an application resulted in a contract that provided $52,290 of the $540,000 state grant. These funds enabled the department to employ a full-time staff composed of a general manager, coordinator of volunteers, program coordinator and manager of clinics and vaccine.

## Distribution

Since local health agencies were responsible for distributing vaccine and such related supplies as consent forms, reaction cards, needles and syringes, tally sheets and vaccine accounting records to physicians in industrial and private practice, it was necessary to devise a suitable method for providing these supplies to an estimated 1,200 physicians. Four pharmaceutical wholesale supply firms serve the St. Louis metropolitan area. They were contacted with a request that they donate volunteer service in the distribution of vaccine and supplies. Each responded favorably, agreeing to participate as a community service.

Physicians were notified that they could request vaccine and supplies from their pharmacies which, in turn, could obtain them from its usual supplier. Thus, physicians were able to obtain vaccine in the same manner that they could obtain other commercially available biologics such as B/Hong Kong influenza vaccine, but without charge. For purposes of flexibility, vaccine also was made available over-the-counter to physicians on behalf of nursing homes, industries and schools.

## Delivery

Initial field-trials results indicating vaccine to be safe and effective for persons 18 years of age and older resulted in an estimated general target population of 621,108 persons in St. Louis County. It also was estimated that no more than 40% of this group would avail themselves of public clinics.

As mentioned earlier, testimony by federal health officials before Congress clearly indicated a major local public health role in the delivery as well as distribution of vaccine. Accordingly, several types of sites were considered for clinic locations. Shopping centers provided ideal physical facilities. Prior to passage of national insurance legislation, however, concerns about liability precluded their use. Facilities owned or operated by municipalities gen-

**This report on the successful immunization campaign of the St. Louis County Swine Influenza Immunization Program specifies the objectives and operation of the program and the importance of community volunteer support. Whether or not this public health project will ever be repeated, the mechanisms involved demonstrated the capacity to respond effectively to a mandate for the rapid delivery of a presumably necessary public health service.**

**The authors are from the St. Louis County Department of Community Health and Medical Care. Mr. Sansbury was General Manager for the Swine Influenza Program at the time this paper was written. He is now Director of the Clay County Health Department in Flora, Ill. Ms. Brodarick served as Program Coordinator and Mr. De Silva served as Manager of Clinics and Vaccine for this effort.**

erally lacked the clinic and parking space for a large volume of people and were thus rejected. Finally, school buildings seemed to offer the most practical facilities available. Use of 23 separate districts represented a distribution of clinic locations which assured accessibility and convenience and were selected along with supplementary college sites in areas of high-population density.

The St. Louis County plan provided for a daily sequence of clinics for the general population following a series of special senior citizen clinics. Such a plan offset the need to "stockpile" due to inadequate vaccine supply.

The Mid-East Area Agency on Aging and the County Older Resident Program were consulted and a schedule for providing bivalent vaccine for the elderly and high-risk persons at nutrition program sites (or suitable alternative sites) was developed. Superintendents of the 23 county school districts as well as representatives responsible for other mass clinic sites were convened. At that meeting, a basic schedule for general clinics was formulated. It was adjusted at subsequent meetings due to delays in the arrival of vaccine.

Twenty-seven nurse-technicians and eight jet injector repair-technicians were recruited and trained under the professional supervision of the associate director for Primary Health Care. Training films were provided by the jet injector manufacturer. In addition to the film and the associate director's instruction, simulated practical exercises were conducted to familiarize the technicians with the operation of the injector. These technicians were assigned and supervised by the manager of Clinics and Vaccine.

Clinic volunteer support was organized by the Coordinator for Volunteers. In conjunction with the senior citizen organizations, a volunteer supervisor was recruited for each senior-citizen site. After appropriate in-house training, this supervisor recruited, trained and signed volunteers to assist with clinical and clerical details including the completion of a consent form by vaccinees. School superintendents designated a district coordinator for volunteers. When more than one clinic was scheduled in larger school districts, the district coordinator recruited a volunteer coordinator for each clinic. Again, in-house training was provided for these volunteer supervisors who, in turn, recruited, trained, assigned and evaluated a clerical staff of volunteers (20 to 30 per clinic).

The consent forms signed by vaccinees in public clinics were later alphabetized and microfilmed to facilitate storage and retrievability.

Volunteer professional assistance was solicited from and provided by the local chapter of the American Red Cross and the St. Louis County Medical Society. In addition, the Coordinator of Volunteers recruited support from many individuals and organizations to answer telephone inquiries.

In conjunction with the program, county public health nurses provided immunizations to the homebound. Upon completion of the regularly scheduled mass clinic activities ("mop-up" clinics were later scheduled during early December), hospitals were contacted and asked to consider conducting walk-in clinics on a temporary ongoing basis. Four private hospitals responded favorably to the request. Three of those decided to operate on a 24-hour-a-day, round-the-clock basis.

Table 1 shows the number of doses of vaccine administered by both the private and public sectors.

A total of 301,190 persons (48.5% of the target population) were immunized. Of these, 156,806 immunizations or 52.1% were provided by the Department of Community Health and Medical Care. Of the total number of persons receiving influenza immunizations under the program, 126,334 (41.9%) received bivalent vaccine for Victoria influenza as well as swine influenza.

Table 2 shows the clinic schedule, number and type of vaccinations given in various clinics by DOCHMC personnel.

### Epidemiology and Surveillance

The purpose of influenza epidemiology and surveillance activities is to determine how much and what kind of influenza is occurring in the community. Accordingly, infection control committee representatives (nurse-epidemiologists) at community hospitals were contacted and asked to gather information on the frequency of influenza-like illness observed particularly among emergency room and outpatient clinic patients. In addition, virus isolation and serology materials were made available to a sample of schools and colleges. After specimens had been collected, they were transferred to the Virology Laboratory of the Missouri Division of Health where throatwashings are inoculated and harvested from an appropriate cell culture system and serologies are tested by hemagglutination inhibition.

On Dec. 16, 1976, vaccinations were suspended due to scattered reports of ascending paralysis (Guillain-Barré Syndrome) among vaccinees. At the request of the state epidemiologist, a survey of neurologists in practice in St. Louis County was conducted to determine how many cases of Guillain-Barré Syndrome had been diagnosed since the start of the immunization activities and whether those having the syndrome had been vaccinated.

### Influenza

Of 26 throatwashing specimens from elementary, secondary and college students submitted to the Virology Laboratory of the Missouri Division of Health, three specimens yielded isolates of B/Hong Kong. Follow-up investigation identified two of the patients as high school students in a south county school district where absenteeism in their school reached approximately 15% for a brief period of time at or about the time of their illness. The third patient was a student at a university whose Student Health Service reported no indication of unusual morbidity trends or increase in clinic visits.

### Gullain-Barré Syndrome

Neurologists surveyed during the third week of December reported a total of three clinically diagnosed cases of Guillain-Barré Syndrome, two of the patients had received flu vaccine. A fourth suspect-case in a vaccinated person was reported by an acquaintance. In that case, the patient was treated by her father, a physician in Ohio. This report was referred to the state for follow-up and ultimately included in the case count.

The three cases with vaccine were from a population of 301,190 vaccinated persons. The one case without vaccine was from an estimated population of 671,180 unvaccinated persons representing a relative risk of 6.7.

TABLE 1

VACCINE ADMINISTRATION

| *Administered By* | MONOVALENT | *Doses*<br>BIVALENT | TOTAL |
|---|---|---|---|
| Private sector | | | |
| A. Private hospital walk-in clinics | 25,090 | 11,384 | 36,474 |
| B. Private physicians, nursing homes, colleges, industries | 36,660 | 71,250 | 107,910 |
| Subtotal | 61,750 | 82,634 | 144,384 |
| DOCHMC | | | |
| A. Senior citizen clinics | — | 17,069 | 17,069 |
| B. Mass clinics | 95,909 | 25,037 | 120,946 |
| C. Industrial clinics | 17,037 | 1,044 | 18,081 |
| D. Walk-in clinics | 160 | 550 | 710 |
| Subtotal | 113,106 | 43,700 | 156,806 |
| Grand total | 174,856 | 126,334 | 301,190 |

### Comments

The results of the Swine Influenza Immunization Program should be considered in light of the chronology of events which affected the national vaccination program. Some of the salient events that affected public response to the influenza prevention effort were allegations of a production error by one manufacturer in an early phase of vaccine preparation, the "insurance impasse" during which insurance firms contended that the program was uninsurable, Legionnaires' Disease, the Allegheny County, Pennsylvania report of deaths among several vaccinees and later reports of ascending paralysis (Guillain-Barré Syndrome) among several hundred vaccinees. Furthermore, the influenza season of 1976-1977 was remarkably mild.

It is interesting to note that in an editorial published in *Hospital Practice* in June, 1976, Edward Kilbourn, who developed the prototype vaccine strain, warned:

> As in any mass immunization with any vaccine, it is predictable that two problems will be encountered: (1) any symptom or illness that closely follows vaccine immunization may be attributed to the vaccine and (2) any febrile respiratory illness that later occurs will be viewed as vaccine failure.

Despite the ongoing public debate, the opera-

TABLE 2

PUBLIC CLINIC VACCINE ADMINISTRATION

| *Date* | *Senior Citizen Clinics* | *Monovalent* | *Bivalent* | *Total* |
|---|---|---|---|---|
| 10/8 | 12 sites | — | 5,888 | 5,888 |
| 10/15 | 12 sites | — | 5,650 | 5,650 |
| 10/22 | 9 sites | — | 5,531 | 5,531 |
| | *Industrial Clinics* | | | |
| 10/26-10/27 | McDonnell-Douglas | 11,626 | 526 | 12,152 |
| 10/29 | County Employees | 1,186 | 178 | 1,364 |
| 11/5 | Emerson Electric | 1,148 | 153 | 1,301 |
| 11/5 | Monsanto | 1,656 | 0 | 1,656 |
| 11/12 | Maritz Corp. | 643 | 0 | 643 |
| 11/12 | Military Records Center | 396 | 187 | 583 |
| 11/20 | Chrysler Corp. | 382 | 0 | 382 |
| | *Mass Clinics* | | | |
| 10/23 | Washington University | 938 | 231 | 1,169 |
| 10/24 | Florissant Valley | 2,760 | 715 | 3,475 |
| 10/24 | Meramec | 1,523 | 408 | 1,931 |
| 10/25 | Maplewood-Richmond Hts. | 1,063 | 391 | 1,454 |
| 10/25 | Clayton | 3,449 | 876 | 4,325 |
| 10/26 | Bayless | 2,010 | 909 | 2,919 |
| 10/26 | Affton | 2,876 | 904 | 3,780 |
| 10/27 | Valley Park | 761 | 202 | 963 |
| 10/27 | Wellston | 89 | 15 | 104 |
| 10/28 | Ladue | 2,873 | 928 | 3,801 |
| 10/28 | Hancock | 1,006 | 440 | 1,446 |
| 10/30 | Parkway | 7,831 | 1,325 | 9,156 |
| 10/31 | Florissant Valley | 3,564 | 858 | 4,422 |
| 10/31 | Meramec | 2,223 | 703 | 2,926 |
| 11/1 | Riverview | 1,954 | 672 | 2,626 |
| 11/1 | Brentwood | 1,218 | 560 | 1,778 |
| 11/1 | Jennings | 877 | 287 | 1,164 |
| 11/3 | Normandy | 888 | 450 | 1,338 |
| 11/3 | University City | 1,735 | 874 | 2,609 |
| 11/4 | Pattonville | 3,164 | 585 | 3,749 |
| 11/4 | Ritenour | 2,648 | 992 | 3,640 |
| 11/6 | Hazelwood | 4,229 | 1,055 | 5,284 |
| 11/7 | Florissant Valley | 4,312 | 814 | 5.126 |
| 11/7 | Meramec | 2,376 | 630 | 3,006 |
| 11/8 | Ferguson-Florissant | 3,431 | 871 | 4,302 |
| 11/9 | Webster Groves | 2,588 | 1,103 | 3,691 |
| 11/9 | Kirkwood | 2,863 | 709 | 3.572 |
| 11/10 | Rockwood | 4,356 | 812 | 5.168 |
| 11/11 | Mehlville | 5,706 | 1,442 | 7.148 |
| 11/13 | Lindbergh | 7,135 | 2,078 | 9.213 |
| 11/16 | Hazelwood-Hazelcrest | 1,513 | 444 | 1,957 |
| 11/22-23 | University of Missouri | 1,685 | 54 | 1,739 |
| 12/4 | Washington University | 876 | 239 | 1.115 |
| 12/4 | Meramec | 2,080 | 403 | 2,483 |
| 12/5 | Florissant Valley | 3,113 | 530 | 3,643 |
| 12/5 | Queeny Park | 4,196 | 528 | 4,724 |
| Total | | 112,946 | 43,150 | 156,096 |

tion of the St. Louis County program managed to achieve considerable success in attaining categorical objectives, thereby demonstrating a capacity to respond effectively to a mandate for the rapid delivery of a presumably necessary public health service.

Successful organization of volunteers and other community resources was undoubtedly the key to the overall success of the program. In addition to the efforts of more than 1,500 volunteer professionals, supervisors and clinic assistants, the project immeasurably benefitted from the volunteer participation of the four pharmaceutical supply firms and the four participating private hospitals. Likewise, voluntary support by such agencies as the Red Cross and the County Medical Society was tantamount to public acceptance.

Excellent support and cooperation was received from the County Older Resident Program and the Mid-East Area Agency on Aging which undoubtedly strengthened the response among the primary target population of senior citizens.

Vaccine supply was a distinct problem before and during the operation of clinics. Due to production schedules, vaccine shortages were a common experience. However, while we were advised that 50% of the vaccine available to the district would be provided to St. Louis County, State Progress Reports show that through November 13, during which time the regularly scheduled mass immunization activity was conducted, St. Louis County received only 40% of the district supply of vaccine, resulting in an additional shortage of 60,760 doses of vaccine. Hence, the supply to the wholesalers (which were regularly back-ordered) for private/industrial use was far less than satisfactory.

As of this writing (April, 1977), there has been a conspicuous absence of an outbreak of swine flu for which public health facilities were mobilized and $135 million was appropriated and expended, leading some observers to the conclusion that the program amounted to an exercise in futility. The methods and results of this report are important inasmuch as they demonstrate that given a safe, effective and appropriate influenza vaccine, it can be economically and cost-effectively delivered. By illustration, the National Health Survey findings have shown that 3% of persons who contract influenza are hospitalized an average of nine days at an average cost of $125 per day. With this data, it is easy to appreciate the enormous economic (not to mention human resource) costs associated with even a mild seasonal influenza epidemic. In contrast, although the grant covered a variety of costs including vaccine distribution, disease surveillance and epidemiology and support services in addition to vaccine delivery, a simple unit cost estimate computed by dividing the total grant funds ($52,290) by just the number of immunizations provided in public clinics (156,806) amounts to only $.33. It is reasonable, therefore, to expect that a department, a large part of whose mission is to prevent disease, should continue influenza immunization activities by its own initiative, particularly for the elderly and high-risk population.

★

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MISSOURI STATE MEDICAL ASSOCIATION

Announces

# Summer INTRAV Adventure Programs

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The Missouri State Medical Association and INTRAV are pleased to offer these outstanding travel programs in 1978. INTRAV will, of course, be conducting Medical Seminars for Category II, CME credit on each trip. If you are interested in further details, please contact the Missouri State Medical Association office.

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## Rhine River Adventure

**Eleven days $1298**
**Departing July 4, 1978**
**Via Pan Am**

Your Rhine River Adventure begins the moment you board your chartered Pan Am jet and concludes only after you've spent three delightful days in Brussels, three days cruising on the Rhine, and three days in Munich.

**Brussels** is the center of cosmopolitan Europe. Its exciting contemporary spirit and Old World charm create a captivating atmosphere and a warm welcome to the deluxe Hyatt Regency Hotel. Sightseeing, shopping, and the cuisine are all superb. And at night, the city comes really alive with fun, dancing, music and laughter.

Then unwind for three days aboard the M/S Britannia while drifting past ivy-covered castles, famous cathedrals, vineyards and great old cities. Relax on deck, swim in the pool or enjoy the passing scene from your cabin's big picture window. You have the chance to wander ashore in **Dusseldorf, Rudesheim, Gernsheim, Heidelberg, Mannheim** and **Karlsruhe.**

Then it's on to **Munich,** gateway of the Bavarian Alps, for three days of sightseeing, elegant dining and unsurpassed shopping. The Munich Hilton is located beside the beautiful River Isar. This is still the land of fairy tale castles, hearty appetites and exuberant people.

Rhine River Adventure combines the Old World charm of great cities with the breathtaking scenery of the Rhine.

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## Imperial Europe Adventure

**Eleven days $1198**
**Departing August 27, 1978**
**Via World Airways**

If you have a weak spot for travel that's new and out of the ordinary, the Imperial Europe Adventure is the trip for you. Spend three glorious days each in regal Vienna, fascinating Budapest and unique Dubrovnik.

See **Vienna's** baroque architecture and hear the music of Strauss played in his city, or visit the friendly wine gardens of Grinzing, or while away the hours in the elegant Vienna Inter-Continental Hotel. Bargain hunt on the Karntnerstrasse for petit point and crystal. Your options are numerous.

In **Budapest,** good wine, beautiful women, and gypsy music are still an important part of life. One of the grandest views anywhere on the Blue Danube is from atop Buda Castle Hill. The Budapest Hilton has been built here around a 13th-century monastery. If it's great food and fine brandies you like, you've come to the right place — the fun capital of Eastern Europe.

**Dubrovnik** is a superb Yugoslavian city on the Riviera of the Adriatic Sea. Behind ancient walls, city life remains little changed among the intricate white marble Renaissance buildings that line the narrow stone streets. Shops offer filigree jewelry, embroidery, dyed wool rugs, and original art. Drive the fjord-like coastline to the restored village of Sveti Stephan. Whatever your choice, your stay at the resort-like President Hotel will be enchanting.

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Send to: Missouri State Medical Association
P.O. Box 1028
Jefferson City, Missouri 65101

☐ Enclosed is my check for $ ______________ ($100 per person) as deposit on ______________ adventure.
☐ Please send more information

Names ______________________________

Address ______________________________

City ______________ State ______________ Zip ______________

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# President's Message

On Jan. 20, 1978, Secretary Califano published his second proposed "National Guidelines for Health Planning." The first guidelines released in the fall of 1977 were withdrawn because of the opposition from all sectors of our society. The protest was spontaneous and, apparently, came as a surprise to the Secretary of HEW. Now, HEW states that the new guidelines are to serve as national standards for local Health Service Agencies which will make the ultimate decision on health facilities. The final regulations are to be issued on March 6, 1978.

Howard J. McAlhany, M.D.

The new guidelines should be studied by every physician in this country. They are as follows:

1. A maximum of four hospital beds per 1,000 people. 2. An average annual occupancy rate of at least 80%. 3. Hospitals which deal with complicated obstetric problems must average a 75% occupancy and at least 1,500 births annually. 4. No more than four neonatal intensive and intermediate care per 1,000 live births. 5. A minimum of 20 beds for pediatric units in urban areas. 6. Average annual occupancy rate from 65% to 75% for pediatric units, based on their size. 7. At least 200 open-heart procedures annually in a hospital which provides this service. 8. No less than 300 cardiac catheterizations for adults and a minimum of 150 cardiac catheterizations in any pediatric catheterization unit. 9. Supervoltage radiation only with a service area population of 150,000 people or treatment of at least 300 cancer cases annually. 10. Not less than 2,500 procedures annually for each CAT scanner. 11. Continue present HEW standards for renal disease.

These are not "guidelines" but "standards" which direct the Health Service Agencies to deal with local problems. Little note is made of the fact that if the local HSA fails to conform, the Secretary of HEW then has the power to "decertify" these agencies. Do not be deceived! This is only a ploy used by the bureaucrats to lull us into a sense of false security. Witness what has taken place in Canada. Our practice represents the last bastion of free enterprise in this country. We cannot afford to relegate this to an inept, stumbling bureaucratic order in Washington.

Let's stand and fight for our right to preserve our practice.

# All Physicians' Wives Are Invited to Enjoy Special Events in Kansas City

The MSMA Auxiliary extends a special invitation to all physicians' spouses who attend the MSMA Annual Session in Kansas City to visit the MSMA Auxiliary Convention meetings and enjoy the special events.

Mrs. W. Jack Stelmach, President, emphasizes that physicians' spouses do not need to be members of the Auxiliary to participate.

This annual meeting provides an excellent opportunity for nonmembers to become acquainted with Auxiliary members from all parts of the state, observe the Auxiliary "in action" and learn about its many interesting and worthwhile programs and projects related to the health care field.

Following is a schedule of events which should be of special interest:

### Thursday, April 13

6:00 PM **Dutch Treat Dinner and Play**, "The Latest Mrs. Adams." Waldo Astoria Dinner Theater. Round-trip bus from Crown Center. ($13)

### Friday, April 14

12:00 Noon **Awards Luncheon.** Liberty Room. Speaker: Mrs. Manual A. Bergnes, Norristown, Pa., President-Elect of the AMA Auxiliary.

1:00 PM Seminar: *Impaired Physicians and Their Families.* Centennial "B" Room. H. J. Lurie, M.D., Department of Psychiatry, University of Washington School of Medicine, Seattle, Wash. Sponsored by the MSMA Auxiliary and the Missouri Psychiatric Association.

6:00 PM Reception Honoring President of the MSMA Auxiliary. Century Foyer.

7:30 PM Dutch Treat Dinner.

### Saturday, April 15

7:30 AM **Public Affairs Breakfast.** Century Room. Speaker: E. Thomas Coleman, Kansas City, U. S. Representative from the Sixth District.

12:00 Noon **Installation Luncheon.** Century Room. Honoring MSMA President Howard J. McAlhany, President-Elect John N. Martin and the MSMA Advisory Council.

## *Browse in Our Boutique! Contribute to the MSMF!*

Come and browse through the Auxiliary's AMA-ERF Boutique of Unusual and Unique Gifts. Proceeds will support medical schools of your choice. You also are invited to contribute to the Missouri State Medical Foundation at the Auxiliary Registration Desk.

**For additional information about the convention and special events, please visit the Auxiliary Registration Desk, which will open at 10 AM on Thursday, April 13.**

## RESERVATION FORM—MSMA AUXILIARY CONVENTION EVENTS

________________________________
(Your Name)

________________________________
(Address)

________________________________

Please mail form with your check to "Aux. to JCMS Convention Fund" to: Mrs. L. A. Hollinger, 4403 W. 93rd Terrace, Shawnee Mission, Kan. 66207

Please check events you wish to attend:

| | |
|---|---|
| Thursday, April 13 | |
| ———Dutch Treat Dinner and Play | $13.00 |
| Friday, April 14 | |
| ———Awards Luncheon | $ 8.00 |
| ———Reception for President of Auxiliary | |
| Saturday, April 15 | |
| ———Public Affairs Breakfast | $ 5.50 |
| ———Installation Luncheon | $ 7.00 |

# MSMA Auxiliary

## An Ounce of Prevention

*"It is not an exaggeration to credit preventive medicine issues such as pure water and food, sanitation and the abolition of nostrums with changing the AMA from a weak, provincial and fragmented organization into a truly rational professional society."*

Dr. G. Gayle Stephens, editor of *Continuing Education for the Family Physician,* stated in that one sentence in his February, 1978 editorial exactly what I have been feeling and saying for quite a while (of course, he said it better).

**Mrs. W. Jack Stelmach**
**President**

What is the point and where does the Auxiliary fit in? There are many preventive medicine areas in which the Auxiliary can do its best work for the MSMA and with you.

Consider that death by accident is now the leading cause of death for children. A well-planned safety program carried out in cooperation with the PTAs and local media in our communities could do much to decrease these risks.

The MSMA Auxiliary has worked in close association with the Missouri Division of Health for the last few years to raise the level of immunization of the children in Missouri. This year, we are placing information in the hands of new mothers to alert them to the ease with which they can protect their babies.

And, lastly, the Auxiliary can help in public education to change life style and in areas such as nutrition, smoking, alcohol and drug use. Nutrition classes for youth and the elderly are very helpful. Remember that the first group thinks good diet means a hamburger and French fries and the last group says "cooking for myself is too much trouble."

Look at the preventive medicine needs in your community and ask your County Auxiliary members to help. They'd love it.

By the way, if there is no county auxiliary in your county, please ask the spouses in your area to join together and form one or encourage *your* spouse to become a member-at-large. *We'd* love it!

# New Members

**Roland Abada,** M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Abada is a native of the Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1971. He specializes in anesthesiology.

**Nabil Abboud,** M.D., 216 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Abboud is a native of Homs, Syria, received his preliminary education at Christian Brothers College and his M.D. degree at St. Joseph University in 1970. He specializes in anesthesiology.

**Sara Jane Abramson,** M.D., Suite 108, 701 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Abramson is a native of New Orleans, La., received her preliminary education at Sarah Lawrence College and her M.D. degree at Mt. Sinai Medical School in 1971. She specializes in pediatric radiology.

**H. Bradley Binnington,** M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Binnington is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1968. He specializes in general surgery.

**Michael A. Blum,** D.O., 373 W. 101 St. Terr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Blum is a native of Chicago, Ill., received his preliminary education at Southern Methodist University and his D.O. degree at Kansas City College of Osteopathic Medicine in 1968. He specializes in pediatrics.

**Mark Jeffrey Brodkey,** M.D., 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Brodkey is a native of Omaha, Neb., received his preliminary education at Dartmouth College and his M.D. degree at Johns Hopkins School of Medicine in 1968. He specializes in urology.

**Jonas G. Bustos,** M.D., 1212 Luttrell Rd., Blue Springs 64015, has become a member of Jackson County Medical Society. Dr. Bustos is a native of Pampanga, Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the East in 1968. He specializes in general surgery.

**Terrence Curran,** M.D., 4400 Broadway Bldg., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Curran is a native of Kansas City, received his preliminary education at the Stanford University and his M.D. degree at Kansas University in 1972. He specializes in ophthalmology.

**Charles D. Donohoe,** M.D., 17221 E. 23rd, Independence 64057, has become a member of Jackson County Medical Society. Dr. Donohoe is a native of New York, NY, received his preliminary education at Lemoyne College and his M.D. degree at Albert Einstein College of Medicine in 1972. He specializes in neurology.

**Kent A. Huston,** M.D., 4320 Wornall Rd., Medical Plaza Bldg., Suite 212, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Huston is a native of Wichita, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1970. He specializes in internal medicine and rheumatology.

**Joshua Ernest Jensen, II,** M.D., Christian Hospital Northeast, 11155 Dunn Rd., St. Louis 63136, has become a member of St. Louis County Medical Society. Dr. Jensen is a native of St. Louis, received his preliminary education at Denison University and his M.D. degree at the University of Missouri in 1969. He specializes in general surgery.

**Warren L. Johnson, Jr.,** M.D., 410 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Johnson is a native of Salina, Kan., received his preliminary education at Bethany College and his M.D. degree at Kansas University Medical School in 1969. He specializes in cardiology.

**Eileen D. Kennedy,** M.D., Children's Mercy Hospital, 24th & Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Kennedy is a native of Salina, Kan., received her preliminary education at the University of Kansas and her M.D. degree at the University of Kansas in 1970. She specializes in pediatrics.

**George Kuruvilla,** M.D., Physicians Building, Maryville 64468, has become a member of Northwest County Medical Society. Dr. Kuruvilla is a native of India, received his preliminary education at St. Joseph's College and his M.D. degree at Madras Medical College in 1960. He specializes in general surgery.

**Joel M. Leibsohn,** M.D., 1515 W. Truman Rd., Independence 64050, has become a member of Jackson County Medical Society. Dr. Leibsohn is a native of Cleveland, Ohio, received his preliminary education at the University of Illinois and his M.D. degree at Iowa University in 1971. He specializes in ophthalmic plastic and reconstructive surgery.

**Solomon Lewitton,** M.D., 420 Rockhill Medical Bldg., 6700 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Lewitton is a native of South Africa. He received his M.D. degree at the University of Cape Town in 1955. He specializes in general surgery.

**Ei Sun Lin,** M.D., 346 Woodland, Moberly 65270, has become a member of Chariton-Macon-Monroe-Randolph County Medical Society. Dr. Lin is a native of Taiwan. He received his M.D. degree at China Medical College in 1970. He specializes in anesthesiology.

**Camille S. Matta,** M.D., 4240 Blue Ridge Blvd., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Matta is a native of Lebanon, received his preliminary education at the American University of Beirut and his M.D. degree at the American University of Beirut in 1950. He specializes in ophthalmology.

**Charles K. McAllister,** M.D., University of Missouri School of Medicine, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. McAllister is a native of Covington, Ga., received his preliminary education at Emory University and his M.D. degree at Emory University in 1970. He specializes in infectious diseases.

**William L. Newkirk,** M.D., 508 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Newkirk is a native of Ashland, Ohio, received his preliminary education at Harvard University and his M.D. degree at Ohio State University in 1975. He specializes in emergency medicine.

**Humayun Quadir,** M.D., 10004 Kennerly Rd., St. Louis 63128, has become a member of St. Louis County Medical Society. Dr. Quadir is a native of Bangladesh, received his preliminary education at Dacca University and his M.D. degree at Dacca Medical College in 1962. He specializes in internal medicine and nephrology.

**Raghunath Reddi,** M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Reddi is a native of India, received his preliminary education at Nizam College and his M.D. degree at Osmania University in 1964. He specializes in radiation therapy.

**David S. Rosenberg,** M.D., 1040 N. Mason Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Rosenberg is a native of St. Louis, received his preliminary education at Tulane University and his M.D. degree at the University of Texas in 1972. He specializes in internal medicine and rheumatology.

**Robert M. Ross,** M.D., 373 W. 101st Terr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Ross is a native of New York, N.Y., received his preliminary education at Overland College and his M.D. degree at Georgetown University in 1972. He specializes in internal medicine.

**Ernest T. Rouse III,** M.D., 1034 S. Brentwood, St. Louis 63117, has become a member of St. Louis County Medical Society. Dr. Rouse is a native of Washington, D.C., received his preliminary education at Princeton University and his M.D. degree at Washington University in 1971. He specializes in internal medicine.

**Mario Salinas,** M.D., 1315 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Salinas is a native of Lima, Peru, received his preliminary education at San Marcos University and his M.D. degree at San Marcos University in 1971. He specializes in obstetrics and gynecology.

**Richard Schulz,** M.D., 6150 Oakland, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Schulz is a native of Milwaukee, Wis., received his preliminary education at St. Edward's University and his M.D. degree at St. Louis University in 1967. He specializes in radiology and nuclear medicine.

**Paul M. Stein,** M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Stein is a native of New York, received his preliminary education at the University of Rochester and his M.D. degree at St. Louis University in 1971. He specializes in nephrology.

**Lawrence B. Talbott,** M.D., 12012 Fairway, Shawnee Mission, Kan. 66209, has become a member of Jackson County Medical Society. Dr. Talbott is a native of Wichita, Kan., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1974. He specializes in pathology.

# FINANCIAL STATEMENT FOR THE YEAR 1977

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63144

January 27, 1978

Missouri State Medical Association
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

The balance sheet of Missouri State Medical Association, a non-profit Missouri corporation, has been examined as of December 31, 1977, and attached are the related statements of income and reserves and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the aforementioned financial statements present fairly the financial position of Missouri State Medical Association at December 31, 1977, and the results of its operations and the changes in its financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson and Company

Exhibit A

## Missouri State Medical Association
## Balance Sheet, December 31, 1977

| | | |
|---|---|---|
| *Assets* | | |
| *Current Assets* | | |
| Mercantile Trust Co. (Treasurer's Acct.) | $ 49,975.73 | |
| Central Missouri Trust Co. (Secretary's Acct.) | 816.49 | |
| Petty Cash Fund | 25.00 | |
| Certificate of Deposit | 140,000.00 | |
| Total Current Assets | | $190,817.22 |
| *Investments at Cost (Exhibit C-2)* | | |
| Corporate Bonds | $ 5,000.00 | |
| Corporate Stocks | 75,028.57 | |
| North American Savings Account Due 12/20/78 | 40,079.52 | |
| Total (Market Value $138,617) | | 120,108.09 |
| *Accounts Receivable* | | |
| Advertisers | $ 3,093.92 | |
| Others | 824.88 | 3,918.80 |
| Dues Receivable—Exhibit D (See Reserve-Contra) | | 10,395.00 |
| *Fixed Assets (At Cost)* | | |
| Land | $ 26,000.00 | |
| Building | 119,464.12 | |
| Furniture and Fixtures | 20,637.04 | |
| Total | $166,101.16 | |
| Less Reserve for Depreciation | 27,964.47 | 138,136.69 |
| Advance for Travel Expense | | 982.72 |
| | | $464,358.52 |
| *Liabilities* | | |
| *Current Liabilities* | | |
| Supplies and Expenses | $ 7,900.30 | |
| Due AMA | 370.00 | |
| Due Mo. State Medical Foundation | 10.00 | |
| Total Current Liabilities | | $ 8,280.30 |
| *Deferred Credit to Income* (Advanced Payments) | | 5,170.00 |
| *Reserve for Uncollected Dues* (See Receivable) | | 10,395.00 |
| *Reserve for Future Activities—* Balance 1/1/77 | $387,660.66 | |
| Loss on Sale of Securities | (2,247.99) | |
| Reinvestment of Permanent Investment Income | 24,884.21 | |
| Retirement payment for prior service | 12,647.01 | |
| Excess of income over expense—Exhibit B | 42,863.35 | 440,513.22 |
| | | $464,358.52 |

Exhibit B

## Missouri State Medical Association
## Income Statement for the Year 1977

| *Particulars* | *General Activities* | *Journal Publication* | *Total* |
|---|---|---|---|
| Dues Received (including $3.00 per member annually for the Journal) | $373,506.00 | $ 13,314.00 | $386,820.00 |
| Rentals—Annual Session Exhibit Space | 14,025.00 | | 14,025.00 |
| Annual Session Contributions | 1,680.00 | | 1,680.00 |
| Subscriptions to the Journal—Nonmembers | | 3,594.35 | 3,594.35 |
| Advertising Space—The Journal | | 27,238.46 | 27,238.46 |
| Investments—Interest and Dividends | 42,973.78 | | 42,973.78 |
| Collection Fees on AMA Dues | 6,217.95 | | 6,217.95 |
| Reimbursed Fees for Services | 6,668.77 | | 6,668.77 |
| Total Income | $445,071.50 | $ 44,146.81 | $489,218.31 |
| *Expenses* | | | |
| Salaries | $148,993.68 | $ 15,160.85 | $164,154.53 |
| The Journal—Paper, Printing, etc. | | 55,433.68 | 55,433.68 |
| Consultation Fee | 3,000.00 | | 3,000.00 |
| Commission on Journal Advertising | | 4,791.02 | 4,791.02 |
| Commission and Meeting Expenses | 87,732.07 | | 87,732.07 |
| Custodian Fees—Investments | 305.09 | | 305.09 |
| Depreciation | 5,304.85 | 740.22 | 6,045.07 |
| Dues and Subscriptions | 1,029.70 | | 1,029.70 |
| Employees' Pension Plan Contribution | 13,674.07 | 4,254.23 | 17,928.30 |
| Equipment Purchases, Rentals, and Repairs in lieu of Depreciation | 4,276.22 | 299.09 | 4,575.31 |
| Insurance—General | 1,766.00 | | 1,766.00 |
| Insurance—Blue Cross | 4,331.69 | 353.46 | 4,685.15 |
| MMPAC—Administrative Expenses | 3,190.05 | | 3,190.05 |
| Membership—Data Processing | 11,021.12 | | 11,021.12 |
| Occupancy Expense | 4,501.00 | 628.05 | 5,129.05 |
| Postage | 7,998.39 | | 7,998.39 |
| Professional Fees | 7,878.59 | 642.87 | 8,521.46 |
| Reinvestment Fixed Income | 24,884.21 | | 24,884.21 |
| Stationery, Printing and Office Supplies | 8,148.37 | | 8,148.37 |
| Student Awards | 300.00 | | 300.00 |
| Taxes—Payroll | 8,060.31 | 910.04 | 8,970.35 |
| Taxes—Real Estate | 628.58 | | 628.58 |
| Telephone and Telegraph | 8,420.59 | 687.09 | 9,107.68 |
| Traveling Expenses—Executive Secretary and Assistants | 7,009.78 | | 7,009.78 |
| Total Expenses | $362,454.36 | $ 83,900.60 | $446,354.96 |
| Excess of Income or (Expenses) | $ 82,617.14 | $(39,753.79) | $ 42,863.35 |

Exhibit C-1

## Missouri State Medical Association
## Statement of Commissions and Meeting Expenses
## for the Year 1977

| | | |
|---|---|---|
| Annual Session | | $34,482.76 |
| Council | | 17,886.65 |
| Delegates to AMA | | 18,849.77 |
| Public Affairs | | 7,723.97 |
| Woman's Auxiliary | | 3,909.53 |
| Commissions: | | |
| Commission on Medical Economics, Third Party Medicine, and Governmental Relations | $ 376.32 | |
| Commission on Continuing Education and Health Manpower | 4,088.79 | |
| Commission on Medical-Legal Affairs | 63.64 | |
| Committee on Interspecialty Medicine | 246.63 | |
| Committee on Planning | 50.14 | |
| Committee on Voluntary Health Agencies | 53.87 | 4,879.39 |
| Total | | $87,732.07 |

Exhibit C-2

## Statement of Investments December 31, 1977

| *Description* | *Bonds at Par* | *Cost* |
|---|---|---|
| Pacific Gas and Electric Co., 4½% due 6/1/90 | $5,000.00 | $ 5,000.00 |
| Johns-Manville 200 shares | | 5,582.34 |
| Central and Southwest Corp. 400 shares | | 6,345.62 |
| American Home Products Corp. 150 shares | | 3,006.88 |
| Kraft 90 shares | | 4,158.25 |
| Baker Oil Co. 165 shares | | 5,940.09 |
| Interco—Common no par 420 shares | | 12,407.63 |
| J. P. Morgan and Co. 244 shares | | 5,161.93 |
| International Tel. and Tel. Corp. 100 shares | | 6,986.25 |

*(Continued on next page)*

| | |
|---|---|
| Bankamerica Corp. 400 shares | 13,751.15 |
| A. T. & T. 65 shares | 4,125.42 |
| International Paper 145 shares | 5,563.01 |
| MSMI, Inc. 200 shares | 2,000.00 |
| North American Savings Account, 6% due 12/20/78 | 40,079.52 |
| Total | $120,108.09 |

Exhibit D-1

### Missouri State Medical Association
### Dues Receivable and Membership by Societies
### December 31, 1977

| | MEMBERSHIP | | | | |
|---|---|---|---|---|---|
| *Societies* | *Junior* | *Active* | *Honor* | *Total* | *Unpaid Dues* |
| Andrew | | 3 | | 3 | |
| Audrain | | 22 | 1 | 23 | |
| Barton | | 3 | 1 | 4 | |
| Boone | 6 | 247 | 13 | 266 | $ 1,010.00 |
| Buchanan | | 91 | 17 | 108 | 200.00 |
| Butler-Wayne-Ripley | | 52 | 3 | 55 | 300.00 |
| Callaway | | 13 | 1 | 14 | 300.00 |
| Cape Girardeau | | 65 | 2 | 67 | |
| Chariton-Macon-Monroe-Randolph | | 18 | 7 | 25 | |
| Clay | 3 | 111 | 3 | 117 | 10.00 |
| Clinton | | 3 | 1 | 4 | |
| Cole | | 56 | 6 | 62 | 100.00 |
| Cooper | | 5 | 1 | 6 | |
| Dallas-Hickory-Polk-Dade | | 6 | 2 | 8 | |
| Dunklin | | 20 | | 20 | |
| Franklin-Gasconade-Warren | | 29 | 2 | 31 | 100.00 |
| Grand River | | 29 | 6 | 35 | 200.00 |
| Greene | | 254 | 30 | 284 | |
| Henry | | 5 | 4 | 9 | |
| Howard | | 5 | | 5 | |
| Jackson | 16 | 883 | 156 | 1,055 | 660.00 |
| Jasper | | 79 | 10 | 89 | |
| Jefferson | | 22 | 2 | 24 | 200.00 |
| Johnson | | 13 | 2 | 15 | |
| Lafayette-Ray | | 23 | 1 | 24 | |
| Lewis-Clark-Scotland | | 1 | | 1 | |
| Marion-Ralls-Shelby | | 31 | 1 | 32 | |
| Mid Missouri | | 37 | 2 | 39 | 100.00 |
| Miller | | 2 | 1 | 3 | |
| Mineral Area | | 36 | 3 | 39 | 100.00 |
| Moniteau | | 3 | | 3 | |
| Montgomery | | 1 | | 1 | |
| Morgan | | 5 | 1 | 6 | |
| North Central | | 2 | | 2 | |
| Northwest Missouri | | 16 | 1 | 17 | |
| Ozark | | 35 | 8 | 43 | 100.00 |
| Pemiscot | | 14 | | 14 | 400.00 |
| Perry-Ste. Genevieve | | 15 | 2 | 17 | 100.00 |
| Pettis | | 29 | 4 | 33 | |
| Pike | | 9 | | 9 | |
| Platte | | 4 | | 4 | |
| St. Charles-Lincoln | | 69 | 2 | 71 | 100.00 |
| St. Louis City | 143 | 1,427 | 164 | 1,734 | 6,115.00 |
| St. Louis County | 4 | 497 | 57 | 558 | 100.00 |
| Saline | | 7 | 2 | 9 | |
| Semo | | 36 | 4 | 40 | |
| South Central | | 18 | 1 | 19 | |
| Webster | | 2 | | 2 | |
| West Central | | 32 | 6 | 38 | 200.00 |
| Totals | 172 | 4,385 | 530 | 5,087 | $10,395.00 (A) |

(A) Delinquent dues of members at December 31, 1977 carried at the request of local Societies. Other delinquent members were dropped from membership in accordance with the by-laws.

Exhibit E

### Missouri State Medical Association
### Statement of Source and Application of Funds
### for the Year 1977

| | | |
|---|---|---|
| *Funds Acquired* | | |
| Excess of income over expenses for year | | $42,863.35 |
| Add reinvestment of permanent investment income | | 24,884.21 |
| Less loss on sale of securities | | (2,247.99) |
| Sale of investments—Net | | 2,425.52 |
| Depreciation (non-cash) | | 6,045.07 |
| Decrease in Accounts Receivable | | 466.86 |
| Decrease in Travel Advance | | 310.49 |
| Total Funds Acquired | | $74,747.51 |
| *Funds Applied* | | |
| Retirement Payment for prior service | $12,647.01 | |
| Decrease in Deferred Credit | 80.00 | |
| Total Funds Applied | | 12,727.01 |
| Balance—Increase in Working Capital | | $62,020.50 |
| Accounted for as follows: | | |
| Increase in cash | | $42,927.61 |
| Increase in Certificate of Deposit | | 20,000.00 |
| Increase in Current Liabilities | | (907.11) |
| Balance—Increase in Working Capital | | $62,020.50 |

### Missouri State Medical Association
### Notes to Financial Statements
### December 31, 1977

1. *Investments.* Permanent investments with a cost of $120,108.09 and the Certificates of Deposit were confirmed by a statement from the custodian, Mercantile Trust Company.

Investment income for the year was as follows:

| | |
|---|---|
| Interest—Certificate of Deposit | $16,474.59 |
| Interest—Corporate Bond | 225.00 |
| Dividends on Stock | 22,535.56 |
| Savings Account | 3,738.63 |
| Total Investment Income | $42,973.78 |

2. *Building, Equipment, and Depreciation.* The building occupied by the Association with a cost of $118,611.52 will be depreciated over a useful life of 30 years and the furniture and fixtures in the amount of $20,637.04 has a 10 year useful life. Depreciation is computed on a straight line basis.

Purchase of small equipment, rentals and repairs for the year in the sum of $4,575.31 were charged to expense in lieu of depreciation.

3. *Dues and Assessments.* Membership dues and assessments are taken into income on a cash receipt basis whereas all other accounts are maintained on the accrued basis. The following are the dues and assessments for each member in effect during the year 1977.

| | *Active* | *Junior* |
|---|---|---|
| Journal | $ 3.00 | $ 3.00 |
| Association General Fund | 87.00 | 7.00 |
| Foundation Assessment | 10.00 | |
| Mo. State Medical Assn. Dues and Assessments | $100.00 | $10.00 |
| American Medical Association | 250.00 | 35.00 |
| Totals | $350.00 | $45.00 |

4. *Income Taxes.* The Internal Revenue Service requires that the Association pay taxes on its unrelated business income. For the year ended December 31, 1977, the Association sustained a loss of $448.74 on their unrelated business income. This loss can be carried back to offset prior taxable income.

*28 Scientific Sessions! Important to Every Physician!*

120th MSMA ANNUAL SESSION

April 13-16, 1978 Kansas City Crown Center Hotel *your help is needed by Missouri's future practicing physicians!*

The Missouri State Medical Foundation (MSMF) was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

As other loan sources are becoming less available, the Foundation is growing into one of the major sources of loans for aspiring physicians. Send your check today!

**Give now to the**

**MISSOURI STATE MEDICAL FOUNDATION**

SPONSORED BY THE
MISSOURI STATE MEDICAL ASSOCIATION
113 Madison, Jefferson City, Mo. 65101

The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

# FINANCIAL STATEMENT

## MISSOURI STATE MEDICAL FOUNDATION DECEMBER 31, 1977

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63144

January 27, 1978

Missouri State Medical Foundation
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

We have examined the balance sheet of Missouri State Medical Foundation as of December 31, 1977, and the related statements of support, revenue and expenses, and changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned statements present fairly the assets and liabilities of Missouri State Medical Foundation at December 31, 1977, arising from cash transactions, and the revenues collected and expenditures made by it during the year ended, on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson and Company

Exhibit A

### Missouri State Medical Foundation Balance Sheet (Cash Basis), December 31, 1977

*Assets*

| | | |
|---|---|---|
| *Cash* | | |
| Checking Account | $ 48,775.57 | |
| Savings Account #05842586 | 48,734.47 | |
| Total Cash | | $ 97,510.04 |
| Loans Receivable from Medical Students | $675,269.38 | |
| Less Reserve for Loses | 13,287.61 | 661,981.77 |
| | | $759,491.81 |

*Fund Reserve*

| | | |
|---|---|---|
| *Balance January 1, 1977* | | $713,544.93 |
| *Additions for the Year 1977* | | |
| Interest on Student Loans | $ 9,315.49 | |
| Interest on Bank Deposits | 2,362.84 | |
| Contributions (detailed below) | 3,406.24 | |
| Assessment of Members, Active $10.00 | 43,020.00 | 58,104.57 |
| | | $771,649.50 |
| *Less Expenses for the Year 1977* | | |
| Administrative Services | $ 6,600.00 | |
| Professional Fees | 1,561.23 | |
| Printing, Meeting and Misc. Expense | 627.44 | |
| Provision for Losses on Student Loans | 3,369.02 | 12,157.69 |
| | | $759,491.81 |

*Contributions*

| | |
|---|---|
| Miller's Medical Arts Pharmacy | $ 100.00 |
| Missouri State Medical Association Auxiliary | 755.62 |
| Clay County Medical Association Auxiliary | 424.12 |
| Jackson County Medical Society Auxiliary | 100.00 |
| St. Charles-Lincoln County Auxiliary | 450.00 |
| Subtotal | $ 1,829.74 |
| Contributions under $100 each | 1,576.50 |
| Total Contributions | $ 3,406.24 |

### Missouri State Medical Foundation Notes to Financial Statements December 31, 1977

1. *Income.* Accrued interest on outstanding loans at December 31, 1977 amounted to $46,462.04 and is not included in the loan balance in Exhibit A.

2. *Student Loans.* Summary of Loans Receivable.

| | |
|---|---|
| Loans Receivable January 1, 1977 | $625,318.98 |
| Uncollectible Loan Reinstated | 670.49 |
| | $625,989.47 |
| Loans made during the year | 101,420.00 |
| | $727,409.47 |
| Less Loan Repayments | 52,140.09 |
| Loans Receivable December 31, 1977 | $675,269.38 |

3. *Reserve for Losses.* This reserve is carried to offset uncollectible loans and to charge off student loan balances in the event of death of the borrower.

## INDEX TO ADVERTISERS

*They Help Make* Missouri Medicine *Possible*

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## CLASSIFIED ADS

### CLASSIFIED ADVERTISING INFORMATION

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**Word Count: Count as one word all single words, two initials of a name, each abbreviation, isolated numbers, groups of numbers, hyphenated words. Count box numbers as five words.**

**Box Numbers—Advertisers using box numbers forbid disclosure of their identity. Written inquiries are forwarded to such advertisers. To assure prompt delivery when replying to an advertisement with a Journal box number, address letters as follows: Box (insert number), c/o Missouri State Medical Association, 113 Madison, Jefferson City, Mo. 65101.**

**All advertisements are subject to approval by the Editorial Board prior to acceptance.**

FAMILY PRACTICE—Group or solo practice in town of 10,000, service area 18,500. Located 30 miles from Kansas City, Mo. New full service, 48-bed hospital. Guaranteed salary and other benefits. Contact Don Black, Administrator, Excelsior Springs City Hospital, 1700 Rainbow Drive, Excelsior Springs, Missouri 64024. 816-637-6081.

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SITUATION WANTED—General surgeon, board certified, seeks solo, group or partnership practice. Willing to do some general practice. Please reply to Box 431, Missouri State Medical Association, 113 Madison, Jefferson City, Mo. 65101.

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FAMILY PRACTICE—Solo Board Certified Family Practitioner is seeking a Family Practice Associate in growing community six miles north of Kansas City Internatonal Airport. Contact Carl M. Myers, M.D., Platte Medical Clinic, Platte City, Mo. 64079. Phone 816-431-2200.

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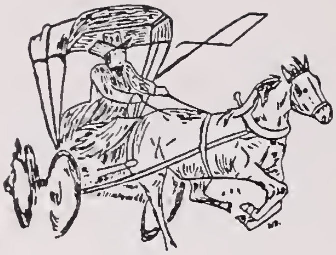
GENERAL PRACTITIONERS AND SURGEONS—Missouri has openings available immediately for General Practitioners and Surgeons. Income guarantee and relocation expenses available. Space available in modern medical buildings. Forward CV to Box 430, Missouri State Medical Association, 113 Madison, Jefferson City, Mo. 65101.

MSMA MEMBERS—Have you moved recently? Please send any changes of address to Missouri Medicine, 113 Madison, Jefferson City, Mo. 65101. We need your help in keeping our mailing list up to date. You are our best source of information.



# Missouri Medicine in Review

**LEO H. POLLOCK, M.D.**

### FORTY YEARS AGO

The Jasper County Medical Society issued the first number of its new publication, *The Caduceus,* on February 7. The purpose of *The Caduceus* is to keep members informed of the activities of the Society.

The Cape Girardeau County Medical Society held a dinner meeting at the Colonial Tavern in Cape Girardeau on February 14. Dr. B. W. Hays, Jackson, took the chair in the absence of the President and Vice-President. A letter from Dr. Ellis Fischel, St. Louis, state chairman of the American Society for the Control of Cancer, was read. It concerned the organization of the Women's Field Army in the county with enlistments to take place on April 1. The Society voted to endorse this work.

The Cooper County Medical Society met on January 26 at St. Joseph Hospital in Boonville with Dr. T. C. Beckett, Boonville, presiding.

The Dunklin County Medical Society met at the home of Dr. E. L. Spence in Kennett for dinner on January 25. Those present were Drs. W. D. English, Cardwell; S. E. Mitchell and John D. VanCleve, Malden; and T. J. Rigdon, E. L. Spence and J. H. Keim, Kennett. After dinner, the Society meeting was called to order by Dr. English, President. Officers elected were Dr. VanCleve, President; Dr. E. G. Cope, Hornersville, Vice-President; Dr. Rigdon, Secretary-Treasurer.

### TWENTY-FIVE YEARS AGO

New officers of the medical staff elected recently at Perry County Memorial Hospital are William Utterman, M.D., president; L. W. Feitz, M.D., vice-president; and J. J. Bredall, M.D., secretary.

J. M. Perry, M.D., Princeton, was honored for his 50 years of practice at a dinner given by the Princeton Chamber of Commerce on December 4. More than 100 persons were in attendance.

Among Colonels appointed by incoming Gov. Phil M. Donnelly are the following physicians: Drs. Claude J. Hunt, Kansas City; S. F. McCracken, Excelsior Springs; Roland F. Eikins, Springfield; W. O. Finney, Chaffee; A. D. Markel, Poplar Bluff; and E. L. Spence, Kennett.

James W. Colbert, Jr., M.D. will assume his duties as dean of the St. Louis University School of Medicine in March. Dr. Colbert, who will be the youngest dean of any major medical school in the United States, is from Yale University School of Medicine where he has been assistant dean in charge of postgraduate studies.

Officers elected by the Grand River County Medical Society for 1953 are Drs. Virgil Vandiver, Chillicothe, President; John Platz, Carrollton, First Vice-President; W. A. Broyles, Bethany, Second Vice-President; and E. A. Duffy, Trenton, Secretary-Treasurer.

### TEN YEARS AGO

Dr. Dallas D. Anthony, new president of Greene County Medical Society, has been described as the "Medical Society's chief booster for Springfield" by Larry Brown, who told of Dr. Anthony's life and accomplishments in a feature story in the *Springfield News & Leader.* Dr. Anthony shares offices with Drs. Marvin L. Napper and Harwood N. Sturtevant in Springfield.

Melvin M. Schwartz, M.D. has been elected President of St. Louis County Medical Society for 1968. He was installed with other officers for the coming year at the Society's installation banquet in Clayton on January 10.

An area of learning, which has not been included by most American medical schools during the past 15 to 20 years, is now being taught at the University of Missouri School of Medicine. The course is forensic medicine and is being taught by Dr. John F. Edland, assistant professor of pathology. Its purpose is to teach doctors to be knowledgeable about legal matters. Dr. Edland will be assisted by an attorney from the Law School.

Dr. George A. Johnson has been installed as president of the medical staff at Springfield Baptist Hospital. He succeeds Dr. Walter A. German, Jr. Other new officers are Dr. Jim K. Waterfield, vice-president, and Dr. Max Rosen, secretary-treasurer.

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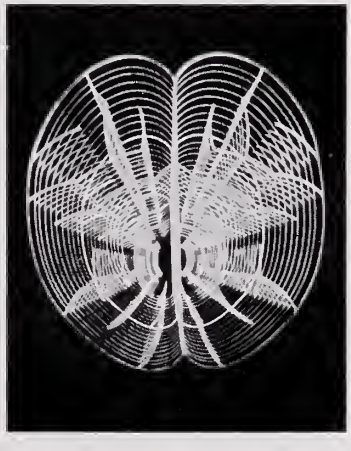

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**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
**Dosage:** Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

APRIL, 1978

VOLUME 75, NUMBER 4

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University of Missouri-Columbia Medical Center
SPECIAL ISSUE

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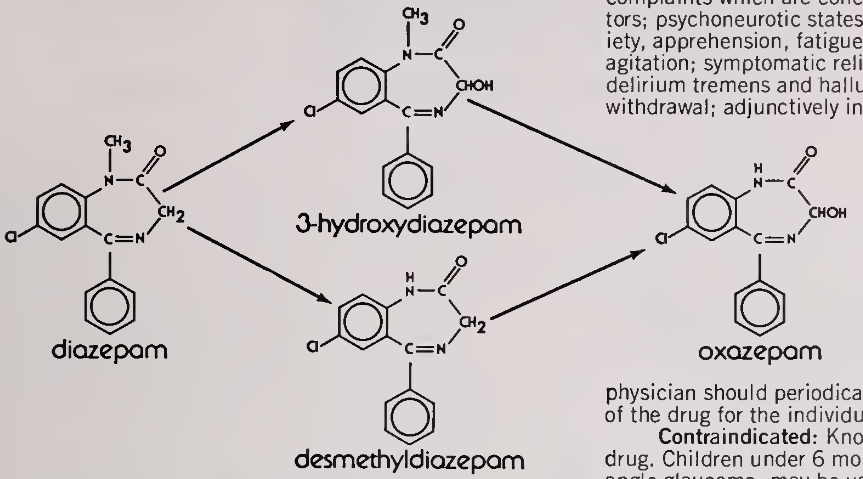

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***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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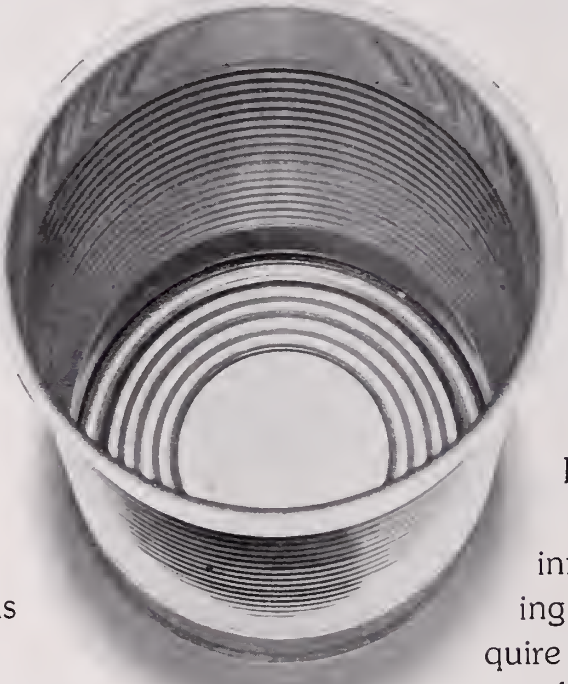

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# Abstracts From the Annual Meeting of the Missouri Chapter, American College of Surgeons

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MISSOURI MEDICINE *is pleased to publish this second group of abstracts of papers presented at the 1977 Annual Meeting of the Missouri Chapter of the American College of Surgeons. Additional abstracts are scheduled for publication in a subsequent issue. Boyd E. Terry, M.D., served as Chairman of the Program Committee for this meeting.*—THE EDITOR

---

## Low Anterior Resection for Treatment of Tumors of the Rectum

E. J. SCHEWE, JR., M.D., F.A.C.S., COLUMBIA

*From the Department of Surgery,*
*University of Missouri Medical Center*

The material to be presented consists of 50 cases of malignant neoplasm of the rectum treated by low anterior resection and primary anastomosis over a period of 15 years in Central Missouri in a private practice environment.

The data analyzed emphasizes the histopathology of the lesions, the surgical results achieved, control of the neoplasm with reference to the sex of the patient and the lymph node involvement, local recurrence rates and postoperative complications with certain aspects of the technique discussed.

* * *

## Deep Soft Tissue Abscesses Secondary to Nonpenetrating Trauma

MAX A. HEEB, M.D., F.A.C.S., SIKESTON

Superficial abscesses following penetrating or nonpenetrating injuries are one of the common surgical conditions of outpatients. Deep, soft tissue abscesses secondary to nonpenetrating trauma are less common and often pose a diagnostic problem. The American Surgical Literature and Textbooks have failed to disclose a discussion of this condition as a clinical entity. Failure to recognize the clinical picture of deep abscess following nonpenetrating trauma can lead to prolonged disability and delay of surgical treatment.

The author described five cases of this condition in 1971. The current discussion describes additional cases and review of the world literature as well as proper surgical treatment.

* * *

## Repair and Rehabilitation of Burned Hands

R. A. HEIMBURGER, M.D., F.A.C.S., COLUMBIA

Rehabilitation begins immediately after injury. Good care includes early debridement and grafting, elevation, careful splinting, vigorous supervised exercise and pressure garments. A team approach demands careful coordination and communication. The whole person must be considered in treatment of the hands, and adjustment should be made according to present and future needs. Follow-up should be continued for at least six months and long enough after that period to evaluate and correct any long-term disability.

* * *

## Recurrent Subareolar Abscess of the Breast With Nipple Fistula

PAUL G. KOONTZ, JR., M.D., F.A.C.S. AND
COLE GOODMAN, M.D., KANSAS CITY

*From the Department of Surgery and the*
*Department of Plastic Surgery,*
*University of Missouri-Kansas City School of Medicine*

The most common infection of the female breast is postpartum mastitis. Less well recognized is the chronic, recurring infection of the subareolar area of the breast which is usually associated with a fistulous communication between the abscess cavity and one or more nipple ducts. Unless the fistula is eliminated surgically, the abscess may recur repeatedly causing needless pain and concern.

This paper presents a review of the experience of the authors with 20 patients in whom the diagnosis of chronic subareolar abscess was made. Pathogenesis of the lesion and treatment are discussed.

* * *

## Spontaneous Pneumothorax: Abdominal Presentation, Age-Related Morbidity and Mortality

RONALD C. MERRELL, M.D., JOHN P. CONNORS, M.D.
AND RICHARD C. SHAW, M.D., ST. LOUIS

*From the Department of Surgery,*
*Washington University School of Medicine and*
*The Jewish Hospital*

Signs of ventilatory embarrassment and chest discomfort are the usual presenting symptoms in patients with spontaneous pneumothorax. However, two patients seen recently at the St. Louis County Hospital complained only of severe abdominal distress, thus delaying diagnosis and the institution of appropriate therapy.

This experience prompted a review of 60 consecutive cases of spontaneous pneumothorax seen during the last 15 years. The morbidity and mortality associated with pneumothorax was strikingly age-related. This disease entity was well tolerated and controlled with varied therapeutic modalities in the younger age group. Associated chronic obstructive pulmonary disease, secondary pneumonitis and cardiovascular complications were more common in patients in the older age group and were responsible for a hospital mortality rate of 16% (4/25).

Immediate diagnosis and institution of effective treatment including reexpansion of affected lung, aggressive pulmonary toilet and antibiotic coverage are necessary in order to minimize complication of spontaneous pneumothorax.

* * *

## Hyperparathyroidism: A Review

HOWARD L. MUSSELL, M.D., F.A.C.S. AND
MARSHA DELANEY, M.D., COLUMBIA

*From the Department of Surgery,*
*University of Missouri Medical Center*

Hyperparathyroidism remains a relatively uncommon disorder with continuing disagreement over methods of diagnosis and treatment. Data have been obtained from an 18-year retrospective study of those patients with hyperparathyroidism at the University of Missouri Medical Center.

Parathyroid adenomas were responsible for the majority of the cases of primary hyperparathyroidism.

The major postoperative complication was hypocalcemia, which is most commonly encountered after adenomectomy and biopsy of normal glands or adenomectomy and thyroidectomy.

Most patients with hyperparathyroid disease will be successfully treated by (1) excision of an adenomatous gland(s) and visualization of all remaining normal glands or (2) removal of three and one half hyperplastic glands.

The operation should be designed to preserve healthy parathyroid tissue.

* * *

## Surgical Treatment of Renovascular Hypertension

JOSEPH A. PINKERTON, JR., M.D., F.A.C.S.,
JAMES T. CROUCH, M.D. AND J. N. SHARMA, M.D.,
KANSAS CITY

Thirty-seven hypertensive patients with renal artery disease have been treated surgically by the author in the past four years and are the subject of this report. There have been 19 men and 18 women. Preoperative evaluation included a hypertensive intravenous pyelogram, a renal arteriogram and differential renal vein renin measurements.

Renal artery stenosis was caused by atherosclerosis in 27 patients, 19 of whom were men. Fibromuscular hyperplasia was the cause of renal artery stenosis in ten patients, all of whom were women. Bilateral renal artery stenosis was present in 15 patients. Unilateral renal artery reconstruction was done in 28 patients. Simultaneous bilateral reconstruction was done in three patients. Renal artery reconstruction combined with aorto-iliac reconstruction was done in three patients. Unilateral renal artery reconstruction with ipsilateral heminephrectomy was done in one patient and total nephrectomy in two patients.

All patients have demonstrated improvement in blood pressure control, with 14 patients no longer receiving antihypertensive drug therapy. There were two early postoperative deaths. One resulted from disseminated intravascular coagulation in a patient who had undergone unilateral renal artery reconstruction in conjunction with an aorto-femoral bypass graft. The second death resulted from a massive cerebrovascular accident.

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1954
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BRIEF SUMMARY

**Indications**: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

**Contraindications**: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

**Precautions:** Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

**Adverse Reactions:** Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

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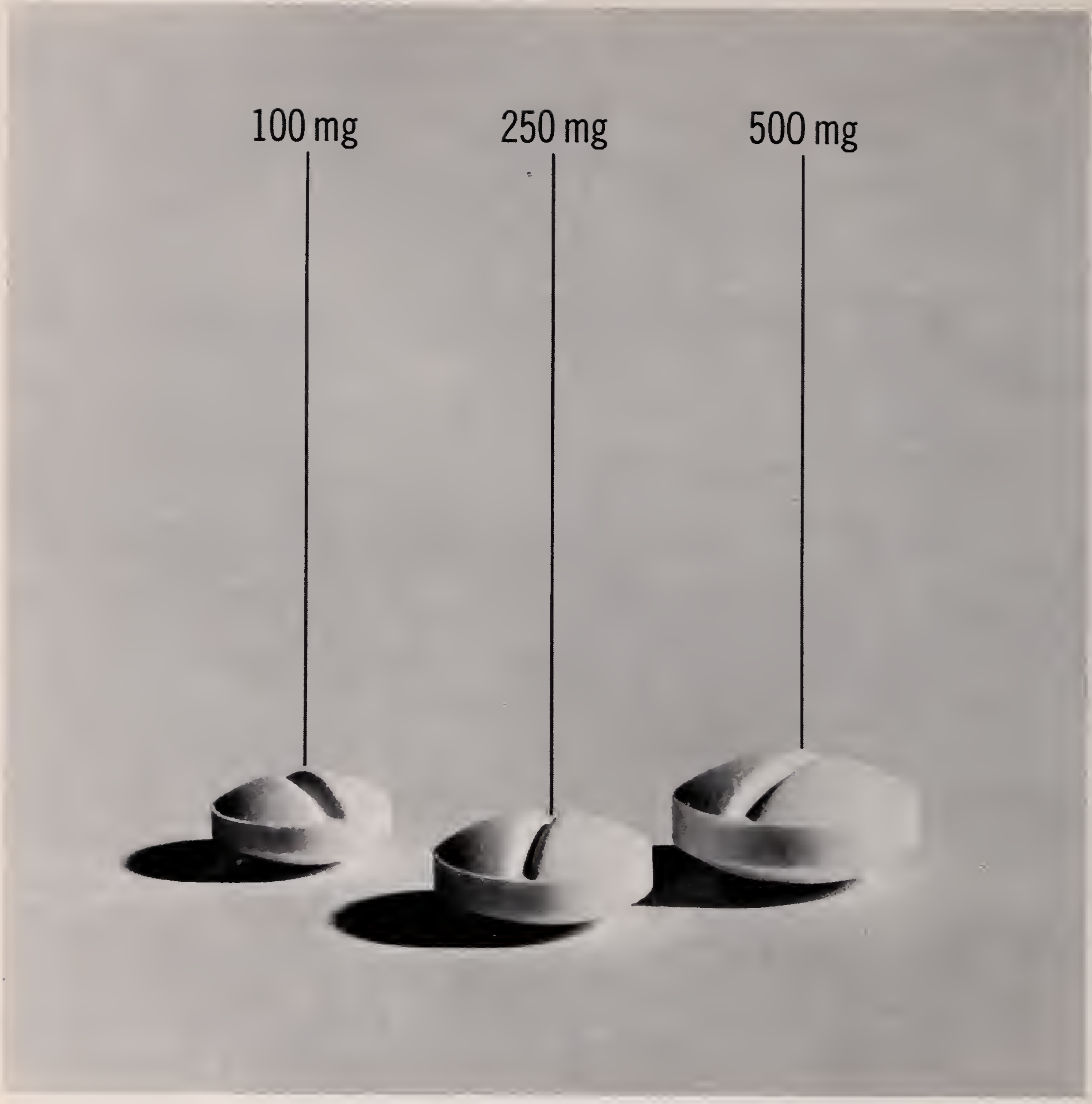
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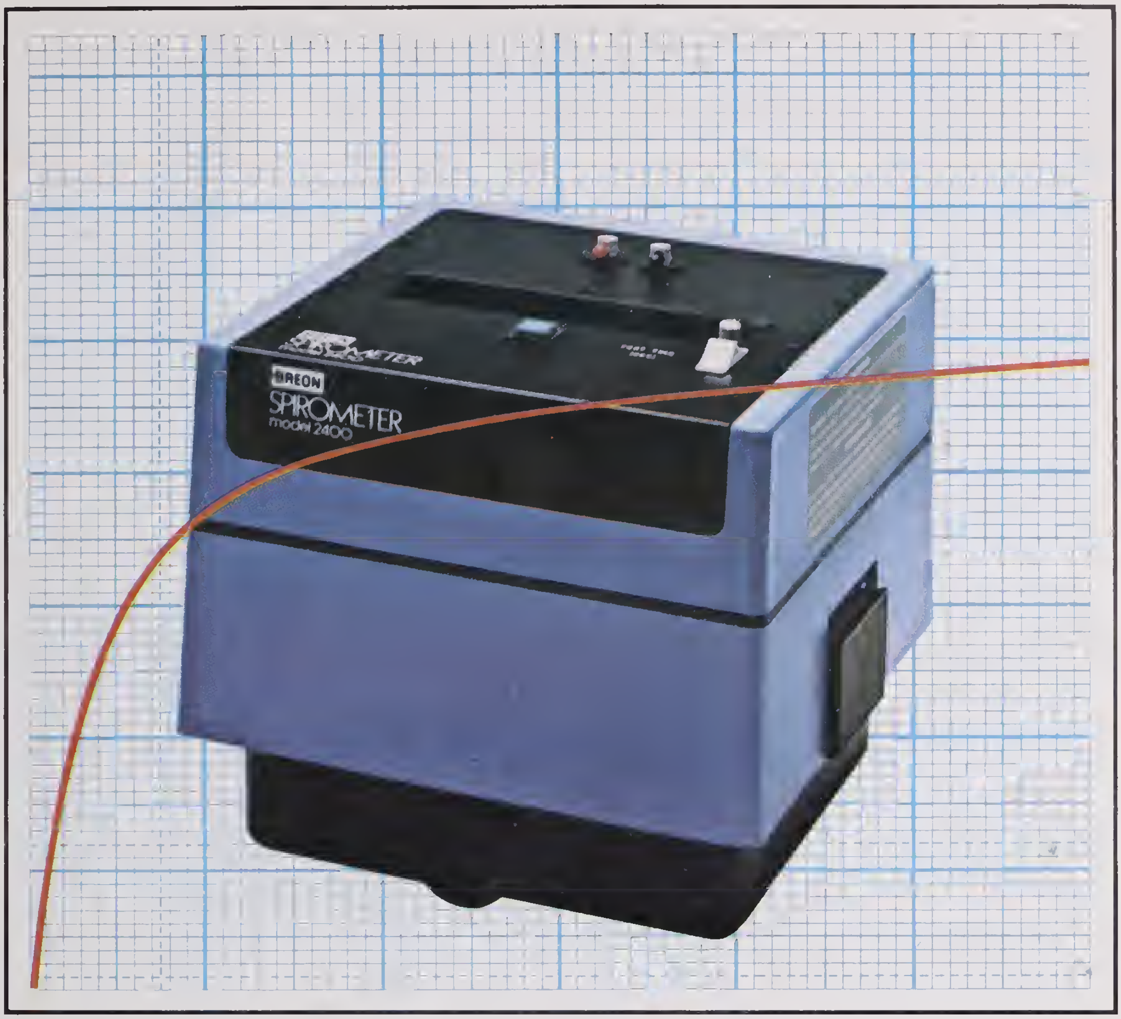

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MSMA

# NEWS ROUND - UP

April, 1978

# Major bills still alive in Legislature

After more than three and one-half months of work, the next few days will prove decisive in the consideration of legislation before the Missouri General Assembly. If you have not informed your State Senator and Representative how you stand on the issues, do so now . . . It's all over on April 30!

As this report is written several bills of importance to the medical profession remain alive. It is impossible to provide the current status of each bill, but hopefully, news reports and your MSMA "Legislative Contact" will be able to assist.

Senate Bill 699, which would allow chiropractors to "use adjunctive therapy," remains a threat to good health care in Missouri. Passage of this bill would allow improperly trained chiropractors to expand their practice into areas of medicine.

Senate Bill 874 and House Bill 1691, both of which would authorize future establishment of a School of Optometry in St. Louis, have received strong support from St. Louis interests and Legislators. Although the bills call for federal assistance money to help fund the project, it would appear that such funds are not available. The state money slated for this school would be better utilized training fully qualified physicians. It appears that Senate Bill 518, which would allow optometrists to use topically-applied drugs, is dead for this Session.

Senate Bill 507, Certificate-of-Need legislation, has been kept in good shape with the defeat of an amendment which would have included physicians' offices. House Bill 1075, which would add a lay member to the Board of Healing Arts, is set for Senate action.

House Bill 933, which provides for generic drug substitutions, has been amended to require the pharmacist to place the drug manufacturer's name on the prescription and place the line "dispense as written" on the right side of the prescription blank. Opponents will probably attempt to remove these two important amendments.

Other bills which stand a chance of passage and which have been supported by the MSMA include HB 884, which would provide state loans for medical students; HB 1492, which would allow medical technicians to remove donated eyes under the Anatomical Gift Act; SB 624, which clarifies the advertising section in the Medical Practice Act; SB 610, which would provide a hearing for a provider denied Medicaid payments; and SB 765, which would provide state funding for autopsies on infants who die prior to age one.

Three bills relating to mental health have passed the Senate and await House action. They are SB 651, which rewrites the mental health commitment, treatment and custody regulations; SB 652, which calls for community mental health centers; and SB 653, which would drop the requirement that mental health facility superintendents must be physicians. All of these are of great interest and Missouri psychiatrists have testified before Legislative committees.

The next issue of MISSOURI MEDICINE will carry an indepth report on the final actions taken by the Missouri General Assembly.

## St. Louis City and County to consolidate

The St. Louis Medical Society and the St. Louis County Medical Society have voted to consolidate both societies, forming the St. Louis Metropolitan Medical Society.

Balloting on the proposal was tabulated on March 8, 1978. With 83 percent of the St. Louis Medical Society members voting, the results were: 1157 affirmative votes; 53 negative votes; and 242 members not voting, which were counted as negative votes. The number of affirmative votes needed to pass in the city was 727.

In the St. Louis County Medical Society election, with 83 percent of the members again voting, the results were: 413 affirmative votes; 55 negative votes; and 96 members not voting, which were counted as negative votes. The number of votes needed to pass in the county was 283.

The amalgamation of the societies will be effective January 1, 1979. The leadership of the new consolidated organization, which will represent over 2,000 members of the medical profession, will be composed of a combination of the Councils of the St. Louis Medical Society and the St. Louis County Medical Society.

## MSMA address change

**According to new postal regulations, mail bearing only a street address will not be delivered to a Post Office box. In addition, a special zip code has been assigned to Post Office boxholders.**

**Therefore, if you wish to mail anything to the MSMA headquarters, the correct address is:**

**Missouri State Medical Association**
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**Jefferson City, MO 65102**

## European tour planned for late summer

An Imperial Europe Adventure tour is being offered to all MSMA members August 27 - September 9, 1978. This 11-day Adventure explores the cities of the Blue Danube in Austria, Hungary and Yugoslavia.

The tour departs from Kansas City and St. Louis and flies directly to Vienna for three days. The next stop, via train, is three days in Budapest. Finally, three days will be spent in Dubrovnik, a city located on the Adriatic. It is a non-regimented tour, so travelers may join in the optional sightseeing excursions or explore on their own.

The trip, arranged by INTRAV, costs $1,198 each. This covers charted air and train transportation, a 70 lb. luggage allowance, deluxe hotels, American breakfasts, tips and transfers, and a travel director.

Also, a comprehensive program of Medical Seminars will be held on the trip for approximately 8 hours of Category II Continuing Medical Education credit.

MSMA members have been sent brochures further describing the tour, but if you have misplaced yours or would like more information, please write: Imperial Europe Adventure, Missouri State Medical Association, P.O. Box 1028, Jefferson City, MO 65101.

## Immunization campaign launched for preschoolers

In late March, Missouri health officials announced plans for an intensive campaign to increase to 90 percent the immunization levels of some 350,000 preschoolers in the state.

Studies completed each year by health officials indicate that only 66.7 percent of last year's two-year-olds in Missouri were adequately immunized against diptheria, mumps, measles, rubella, polio, tetanus and whooping cough.

The campaign, aimed at youngsters from birth through age four, will start officially in early May as materials are distributed throughout the state.

There will be one major difference between the school-age effort and the preschool program. This preschool campaign will depend totally on the voluntary cooperation of parents.

The first step of the preschool effort will be to make contact with all organized day care centers. The officials in charge will be provided with immunization survey forms to give to parents or guardians of every child enrolled.

In a simultaneous effort, public health officials and physicians in private practice will be asked to check their existing records to identify preschool youngsters with inadequate immunizations levels. Suggestions also will be made, and materials supplied on request, for doctors to maintain a separate file on the immunization needs of their patients.

The preschool program is being launched in cooperation with the National Immunization Initiative announced recently in Washington by the Department of Health, Education and Welfare.

## Dr. Schoenen elected president of Board of Healing Arts

*R. L. Schoenen, D.O., a general practitioner in Jefferson City, was recently elected president of the State Board of Registration for the Healing Arts.*

*Joseph C. Blanton, M.D., Sikeston, was elected secretary of the seven-member board.*

## Health Planning Guidelines

In late March, HEW Secretary Joseph Califano announced a set of 11 health planning guidelines to be used by the 205 local Health Systems Agencies and state agencies. They are essentially unchanged from the proposed guidelines offered for public comment on January 20.

This final version of the guidelines encompasses the following standards:

1. A maximum of four hospital beds per 1,000 persons in a health service area.
2. An average annual occupancy rate of at least 80 percent for all hospitals combined in a health service area.
3. At least a 75 percent average occupancy rate and at least 1,500 births annually for hospitals that provide care for complicated obstetrical problems.
4. No more than four neonatal intensive and intermediate care beds per 1,000 live births.
5. A minimum of 20 beds for pediatric units in urban areas.
6. Average annual occupancy rates ranging from 65 to 75 percent for pediatric units, based on their size.
7. At least 200 open heart procedures annually in any institution in which open heart surgery is performed for adults, and at least 100 heart operations annually in any institution in which pediatric heart surgery is performed.
8. At least 300 cardiac catheterizations annually in any adult catheterization unit, and at least 150 cardiac catheterizations annually in any pediatric catheterization unit.
9. A service area with a population of at least 150,000 persons or treatment of at least 300 cancer cases annually for megavoltage radiation therapy units.
10. At least 2,500 procedures per year for each computed tomagraphic scanner.
11. Plans consistent with already-established HEW standards and procedures for suppliers of end-stage renal disease services.

## Family Nurse Practitioner program

The Family Nurse Practitioner training program at the University of Missouri-Columbia is now accepting applications for the 1978-79 academic year. Deadline for applying is April 21.

Under the sponsorship of the Department of Family and Community Medicine and the continuing education service of the School of Nursing, the program is designed to broaden the skills of professional nurses and prepare them to provide continuing primary care to patients and families in ambulatory care settings, as opposed to the hospital setting.

The goal is to provide rural Missouri with teams of physicians and nurse practitioners. The training program of one year includes a six-month preceptorship in a physician's office.

Qualifications for acceptance in the program are 1) a Missouri nurse's license and continuing commitment to practice in rural Missouri; and 2) three or more years of nursing practice. Experience in an ambulatory setting is preferred. Six nurses are accepted in each year's program.

The 1978-79 program will begin in Columbia on August 21.

More detailed information is available from: Family Nurse Practitioner Program, Department of Family and Community Medicine, NW 509 Medical Sciences Building, University Medical Center, Columbia, Missouri 65201, or telephone 314-882-2996.

# The Physician and the Law

## *The Expert Witness*

Much attention has been directed in recent years o the role of the physician as an expert witness in o-called "malpractice" cases. These cases are only a ew of a multitude which may require expert testimony. The general provisions of the law regarding expert witnesses are outlined here in an attempt o put the role of the physician as an expert in court nto perspective.

Since 1349[1] courts have attempted to follow an opinion rule" in judging the value of a witness's estimony in assisting in the resolution of a dispute between two parties. The opinion rule generally requires witnesses to have "knowledge from observation" or firsthand knowledge before they are qualified to give testimony as evidence in a case. The reason for the rule is that the court must insist on he most reliable source of information available. The rule in some cases has been interpreted to prohibit witnesses from expressing any opinion in testimony which thereby limits the witness's statements to simple observations of fact. The major exception to the opinion rule allows a qualified expert to express an opinion when the subject matter is beyond the understanding of the average juror.

What is an expert? The legal definition is broad:

> A person of peculiar knowledge or skill, a man of science or a person conversant with the subject matter . . . one who by practice or observation has become experienced in any science, art or trade.[2]

Who may be qualified to testify as an expert? Again, the legal standards are broad:

> By reason of education or specialized experience, he possesses superior knowledge respecting a subject about which persons having no particular training are incapable of forming an accurate opinion or of drawing a correct conclusion.[3]

An "expert" is qualified to testify because his knowledge is superior to that of the jury and not because he is recognized by his peers to be eminently qualified. The term qualified expert "implies both knowledge from study and practical experience in the art or profession, but the highest degree of skill is not necessary."[4]

There are many types of opinions which require expert testimony to be offered in court. Among the most common are handwriting, physical condition, mental condition, property values and accident reconstruction. Of these, physicians obviously are asked most often to testify to physical condition.

The physician bases his opinion as an expert on facts obtained from personal examination, facts in evidence put forward in the form of a hypothetical question or a combination of the two.[5]

Expert medical testimony may be required in a number of types of cases such as will contests, when the testator's competency is in question; workmen's compensation; and any personal injury case, such as automobile accident cases as well as medical negligence cases. In all of these cases, the physician-witness is needed in order to offer a professional view of the patient's condition when the condition of the patient is in issue. The testimony may also be required to establish damages when the injury is disabling.

In a medical injury case tried on a theory of negligence, a physician will usually be needed to give expert testimony to establish in evidence a "standard of care." The "standard of care" is the guideline used by the jury in determining whether a person is negligent.

The new definition of negligence, which establishes the standard of care given to the juries of Missouri when the negligence of a physician or surgeon is in issue, follows:

> The term "negligent" or "negligence" . . . means the failure to use that degree of skill and learning ordinarily used under the same or similar circumstances by the members of the defendants profession.[6]

That "degree of skill and learning" must be established by expert testimony.

Many provisions for altering the rules regarding expert witnesses have been proposed recently. Most seem to be aimed at the expert who testifies to establish the standard of care in negligence cases. The proposals range from attempts to reinstate the "locality rule" to allowing contingent fees for expert witnesses. One federal court has allowed contingent fees for an expert witness who appeared in behalf of an indigent.[7] Some have suggested that the phy-

*(Continued on page 162)*

# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

**Ed Bixby Institute for Postgraduate Education**
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

| | |
|---|---|
| June 2 | Drug Actions and Interactions |
| Aug. 2 | Anxiety, Depression and Psychosexual Problems |

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**University of Missouri-Columbia**
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

| | |
|---|---|
| Apr. 25 | Pediatrics Refresher Course—1978 |
| Apr. 27 | A Social Learning Approach to Depression (Missouri Institute of Psychiatry, St. Louis) |
| Apr. 29 | Annual Day of Clinical Radiology |
| May 2-3 | Sports Medicine Conference |
| May 10 | Stroke |
| May 31-June 1 | Fifth International Symposium on Intestinal Microecology |
| Aug. 10-11 | Workshop in Soft Tissue Surgery |

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**The Edward Mallinckrodt Institute of Radiology—Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| May 8 | Hematologic Bone Disease |
| May 25-26 | Fifth International Symposium on Intestinal Microecology |
| Aug. 10-11 | Workshop in Soft Tissue Surgery<br>(Contact J. Regan Thomas, M.D., Section of Otolaryngology) |

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**St. Luke's Hospital**
Foundation for Medical Education and Research
Wornall Rd. at 44th, Kansas City 64111
(816) 932-2047
*Contact:* Robert Newman, M.D., Program Director

| | |
|---|---|
| Aug. 3-5 | Seminar: Understanding and Treating the Adolescent Female<br>(Vail, Colorado) |

**St. John's Mercy Medical Center**
615 S. New Ballas Rd., St. Louis 63141
(314) 569-6000
*Contact:* James G. Blythe, M.D.

| | |
|---|---|
| May 11-12 | Tenth Annual Matt Weis Symposium—Endocrinology and Infertility in Obstetrics and Gynecology |

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**University of Missouri-Kansas City School of Medicine—Kansas City Southwest Clinical Society**
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 471-3876
*Contact:* Alta Bingham

| | |
|---|---|
| May 4-6 | Seminar: Update in Obstetrics and Gynecology |
| May 19-20 | The Long Weekend—Cardiovascular Disease I and II |
| June 1-2 | Symposium on Physical Fitness |

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**Washington University School of Medicine**
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673
*Contact:* Loretta Giacoletto

| | |
|---|---|
| April 20 | Hypertension Update |
| May 3-5 | Current Topics in Infectious Diseases |
| May 18 | Third Annual Symposium on Surgical Problems in Children |
| May 19-20 | Neuromuscular Diseases |
| Nov. 10-12 | Fifth Annual Symposium—Anesthesia and the Geriatric Patient |

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**Greene County Medical Society**
223 Professional Bldg., Springfield 65806
(417) 869-2531
*Contact:* James E. Thompson, Jr., Executive Director

| | |
|---|---|
| Sept. 29 | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

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**Baptist Memorial Hospital**
6601 Rockhill Rd., Kansas City 64131
*Contact:* Margery B. Hartsock, Director of Public Relations (816) 316-3500, Ext. 7230

| | |
|---|---|
| May 9 | 16th Annual Pediatric Seminar—Pediatric Emergencies |

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| May 17, 1978 | St. Louis | Cheshire Inn & Lodge |

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# NEWS
## From the Medical Schools

### ST. LOUIS UNIVERSITY

*David R. Challoner*, M.D., dean of the School of Medicine, has been selected by the National Research Council, Commission on Human Resources to serve as chairman of a panel advisory to the Committee on a Study of National Needs for Biomedical and Behavioral Research Personnel. The appointment is for a one-year period ending Dec. 31, 1978.

Dr. Challoner

The National Research Council is the principal operating agency of the National Academy of Sciences and the National Academy of Engineering in Washington, D. C., serving the government and other organizations.

*Denis H. Tyras*, M.D., assistant professor of surgery, delivered a major scientific paper, "Long-Term Benefits of Myocardial Revascularization," at the 27th Annual Scientific Session of the American College of Cardiology held at the Anaheim Convention and Exhibit Center in Anaheim, Calif.

Dr. Tyras reported the results of an eight-year study of 1,733 patients with coronary bypass grafts performed at the St. Louis University hospitals from January, 1970 through December, 1977.

*C. Rollins Hanlon*, M.D., director of the American College of Surgeons, will be the guest speaker at a two-day conference on "Current Approach to Coronary Artery Disease: Medical, Surgical and Nursing Management" at the Medical Center. The conference will be held on May 4 and 5, in the Margaret McCormick Doisy Learning Resources Center.

A Doctor of Philosophy program in cellular and molecular biology is now being offered at St. Louis University. It is an interdisciplinary, non-departmental course of studies, and it is anticipated that most students will require four to five years to complete the program. Students in the program will be required to serve as teaching assistants in courses offered by participating departments in each year except their first and last years.

Phi Delta Epsilon medical fraternity recently held its ninth annual free children health screening clinic at the Veterans Administration Hospital, John Cochran unit. Approximately 100 children were given the screening which included a complete medical history, urinalysis, blood pressure check, eye test, hearing test and dental examination.

### WASHINGTON UNIVERSITY

For the second consecutive year, a Washington University School of Medicine professor has been awarded the Paul Hoch Award from the American Psychopathological Association.

*Lee Nelken Robins*, Ph.D., professor of sociology in psychiatry, recently received the award and her husband, *Eli Robins*, M.D., received it in 1977. The Hoch award is given annually to a person who has contributed to clinical psychiatry and to research in psychiatry over a long period of time.

Both Dr. Lee Robins and Dr. Eli Robins have received other honors and recognition of their individual work in psychiatry. Both have questioned fundamental premises in clinical psychiatry and have undertaken empirical studies that have changed many views.

Dr. Eli Robins, former head of the Department of Psychiatry, has done research in brain biochemistry as well as clinical psychiatry, including basic diagnostic techniques. Dr. Lee Robins has studied childhood factors which influence psychiatric disorders in adults, sociopathic personality and drug abuse.

### UNIVERSITY OF MISSOURI-COLUMBIA

*Sen. Thomas Eagleton* of Missouri will be the speaker for the medical school graduation on May 13. The ceremony will be in Jesse Auditorium following the campus graduation in the Hearnes Building.

Of the 109 graduates in the Class of 1978, nearly two thirds received their first choice in the national computerized matching program that pairs graduates with teaching hospitals for specialized training. Major teaching hospitals across the nation that chose Missouri graduates include the Mayo Graduate School of Medicine, Duke, Baylor, Vanderbilt and university medical centers in Minnesota, Iowa, Texas, Oregon and California.

*Dr. Jerry Royer,* associate dean for student affairs, said that the class has done exceptionally well in securing places in competitive residency programs.

Forty-four graduates will train in Missouri: 24 at the University of Missouri and VA Hospital in Columbia, 13 at teaching hospitals in St. Louis and eight in Kansas City.

*Dr. Charles E. Mengel,* chairman of the Department of Medicine, has been appointed to the board of editors of the *Journal of Laboratory and Clinical Medicine,* official publication of the Central Society for Clinical Research. He serves on the Council of that Society. He also has been invited to serve on the editorial board of *Annals of Internal Medicine,* official journal of the American College of Physicians.

*Dr. Howard A. Reber,* now a staff physician at the San Francisco VA Hospital, has been appointed chief of surgical service at the VA Hospital in Columbia. He will begin his new duties on July 2. Dr. Reber will also have a faculty appointment with the School of Medicine.

*Dr. Charles L. Puckett* has received a research grant award from the Educational Foundation of the American Society of Plastic and Reconstructive Surgeons. He is associate professor and head of the Division of Plastic Surgery at the University of Missouri Medical Center.

The award was presented at the 46th annual convention of the organization in San Francisco. An estimated 4,000 physicians, surgeons and guests attended.

Dr. Puckett is a graduate of the Bowman Gray School of Medicine of the University of Wake Forest. He completed his general and plastic surgery training at Duke University Medical Center.

Dr. Puckett has focused attention to research in the areas of vascular and microvascular surgery and is researching the microvascular applications to lymphedema and reconstructive surgery.

The Spring Honors and Awards Convocation for the medical school was held on April 6 in conjunction with the AOA lecture and banquet. Guest speaker was *Dr. C. Thorpe Ray,* formerly chairman of the Department of Medicine, who is now professor and chairman of the Department of Medicine at Tulane University.

Student AOA members elected to membership include *John Bennett, Edward Burns, Wallace Franz, Janet Harrison, John Koonce* and *Ron Swinford,* members of the senior class; and *Ross Duff, Jerry Kruse, Michael McFevre, Stephen Palmer* and *Patrick Penn,* M'3s.

## UNIVERSITY OF MISSOURI-KANSAS CITY

*Bruno Lunenfeld,* M.D., Ph.D., professor of medicine at the Institute of Endocrinology of the Chi Shebo Center in Israel was a visiting docent at the School of Medicine on March 22-24. He met with the Israel Travel Group from the school who are departing for that country in May. Dr. Lunenfeld also presented an Endocrinology Round Table at the Alameda Plaza and gave a University Hour lecture entitled "Diagnosis and Management of Female Infertility." He has been a member of the Expert Committee on Biological Standardization and director of the International Reference Center for Fertility Promotion Agents of the World Health Organization.

In conjunction with the Children's Mercy Hospital, *Dr. Richard Wennberg* will be a visiting docent at the School of Medicine on April 24-25. An associate professor and chief of neonatology at the University of California-Davis School of Medicine, Dr. Wennberg is currently working on research in bilirubin metabolism. His present research has resulted in the development of a laboratory method of determining free (toxic) bilirubin in minute quantities. During his visit, he will present an afternoon seminar for neonatal fellows and a conference on "Determination and Evaluation of Free Bilirubin in Infants."

*Dr. Heinz F. Eichenwald,* chief of pediatrics at Parkland Memorial Hospital in Dallas, will be a visiting professor at the School of Medicine in conjunction with The Children's Mercy Hospital on May 18-19. He will deliver a seminar on "The Prevention of Infectious Diseases, the Status of Currently Available Vaccines and What Will Become Available" to students, faculty and housestaff at the Hospital.

Dr. Eichenwald is a graduate of Cornell University Medical College and has been a member of the National Child Health Council of the National Institute of Health, a consultant to the USAID-AMA Vietnam Medical School Project and a member of the Editorial Board of *The Journal of the American Medical Association.*

In May, the School of Medicine will graduate its third class since the inception of its six-year program.

# Missouri Physicians-Artists Invited to Enter Art Exhibit at AMA Convention

Physicians who are artists are invited to join the American Physician's Art Association and enter their work in the annual art exhibit at the new Cervantes Convention Center in St. Louis during the AMA Annual Convention on June 17-21.

Area physicians who work in the fields of painting, sculpture, photography, graphic arts, design and creative crafts are encouraged to participate.

The annual exhibit is of high quality with professional arranging and hanging of art works. Qualified judges award first, second and third prizes in the following categories: oil and acrylics (classical and modern), water color, sculpture, arts and crafts, photography and graphics. In addition, special master awards, honorable mention and best-of-show are presented. There is consideration for advanced and beginning artists.

The American Physician's Art Association, now in its 41st year, has approximately 500 members from across the country.

Membership is open to all interested physicians. For further information, contact John W. Fries, M.D., AAPA Vice-President, St. Anthony's Medical Center, 10010 Kennerly Rd., St. Louis 63128 or call (314) 842-5600, Station 4260.

# *Physician and the Law*

*(Continued from page 157)*

sician-expert appear as a friend of the court rather than as an expert produced by one side or the other. Whatever the proposal, its value will be judged for its ultimate effect on all expert testimony and the ability of the court to obtain a reliable source of information for the fair adjudication of the matters brought before it.

## References

1. Cleary *et al*, McCormick on Evidence 23 (2nd Ed 1972)
2. 35 CJS 240 (1960)
3. *Shelby County R-IV School Distritct v Herman*—392 SW 2d 609 (Mo., 1965)
4. 35 CJS 241 (1960)
5. Prince v Metropolitan Life Insurance Company—129 SW 2d 5,8 (SL App)
6. MAI 11.06 as published 33 J.Mo.B. 324 (1977)
7. Person v Association of the Bar—414 F Supp. 144 (E.D.N.Y., 1976)

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**Combined TEGOPEN®** (cloxacillin sodium)
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**Indications:** Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**Important Note:** When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**Contraindications:** A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**Warning:** Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**Precautions:** The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**Adverse Reactions:** Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**Usual Dosage:** Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

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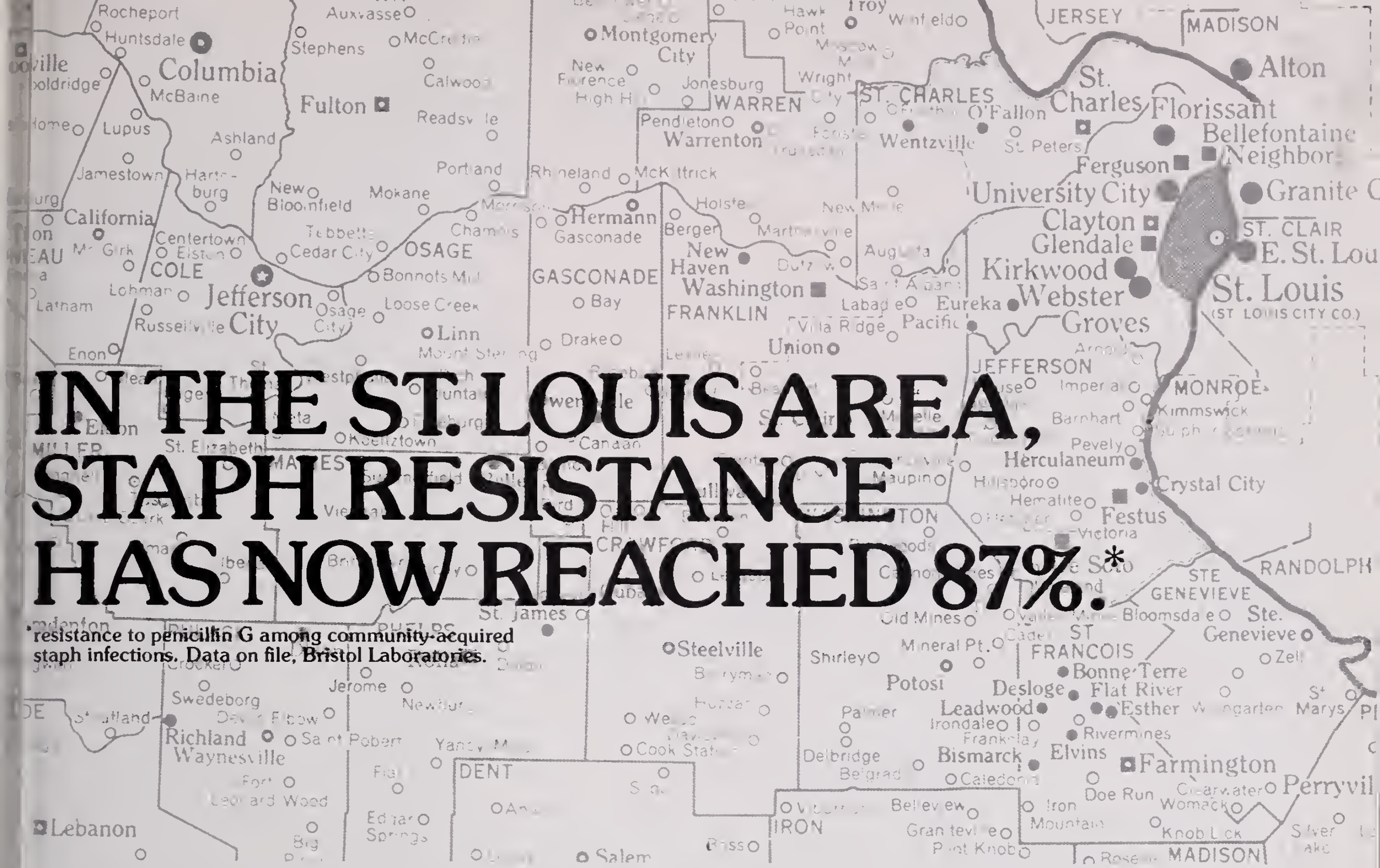
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# IN THE ST. LOUIS AREA, STAPH RESISTANCE HAS NOW REACHED 87%.*

*resistance to penicillin G among community-acquired staph infections. Data on file, Bristol Laboratories.

## WHEN YOU CAN'T RULE OUT STAPH, CONSIDER

# TEGOPEN®
# (cloxacillin sodium)

## ..."THE PENICILLIN OF TODAY"

- Effective against nonpenicillinase-producing staphylococci, beta-hemolytic streptococci, and pneumococci.†

†NOTE: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin. The clinical significance of *in vitro* data is unknown.

- 10 times more active against strep than staph.

- Well absorbed from the G.I. tract.‡

‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.

Please see brief summary for prescribing information.

# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D., ST. JOSEPH

### BUCHANAN COUNTY MEDICAL SOCIETY

The March 1 meeting of the Buchanan County Medical Society was held at the Hoof and Horn Steak House.

A series of demonstrations of cardio-pulmonary resuscitation were presented as the program. Developing instructors and classes in various techniques of rescue is a project of the Buchanan County Medical Society Auxiliary. Various courses are offered by the Northwest Region of the Missouri Heart Association.

Mrs. Wallace McDonald coordinated the program and the demonstrations were made by Mrs. Eugene Wolanski, Mrs. Howard Miller and Mrs. James Sinnett. All are instructors in CPR. Mrs. McDonald and Mrs. Wolanski are wives of physicians.

Mrs. Gary A. Dyer, Community Health Chairman for the Auxiliary, spoke at the meeting and stressed the importance of the CPR program in the community and to the medical profession.

R. PHILIP ACUFF, M.D., *Secretary*

## SECOND DISTRICT

COUNCILOR
JOHN W. WALTERSCHEID, M.D.,
HANNIBAL

### CHARITON-MACON-MONROE-RANDOLPH COUNTY MEDICAL SOCIETY

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on the evening of March 9 in the Library Conference Room at Woodland Hospital in Moberly.

The program was presented by Dr. John Bauer, chief of the hypertensive service at the University of Missouri School of Medicine and the Veterans Administration hospitals in Columbia.

Dr. Bauer said that there are approximately 40 million Americans with high blood pressure who need treatment. He described the various types and causes of high blood pressure and drugs used in treatment. He emphasized that patients with high blood pressure should be considered as a whole since knowing their way of life and the various stresses placed upon them are important factors in treating hypertension.

Members in attendance were Drs. J. E. Campbell,

*(Continued on page 191)*

**Librax**®
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

**Please consult complete prescribing information, a summary of which follows:**

**Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE
Roche Products Inc.
Manati, Puerto Rico 00701

Anxiety...
Often a significant feature
of irritable bowel syndrome*

The action of
Librium®
(chlordiazepoxide HCl)

A significant advantage
of adjunctive
Librax®

Each capsule contains
5 mg chlordiazepoxide HCl and
2.5 mg clidinium Br.

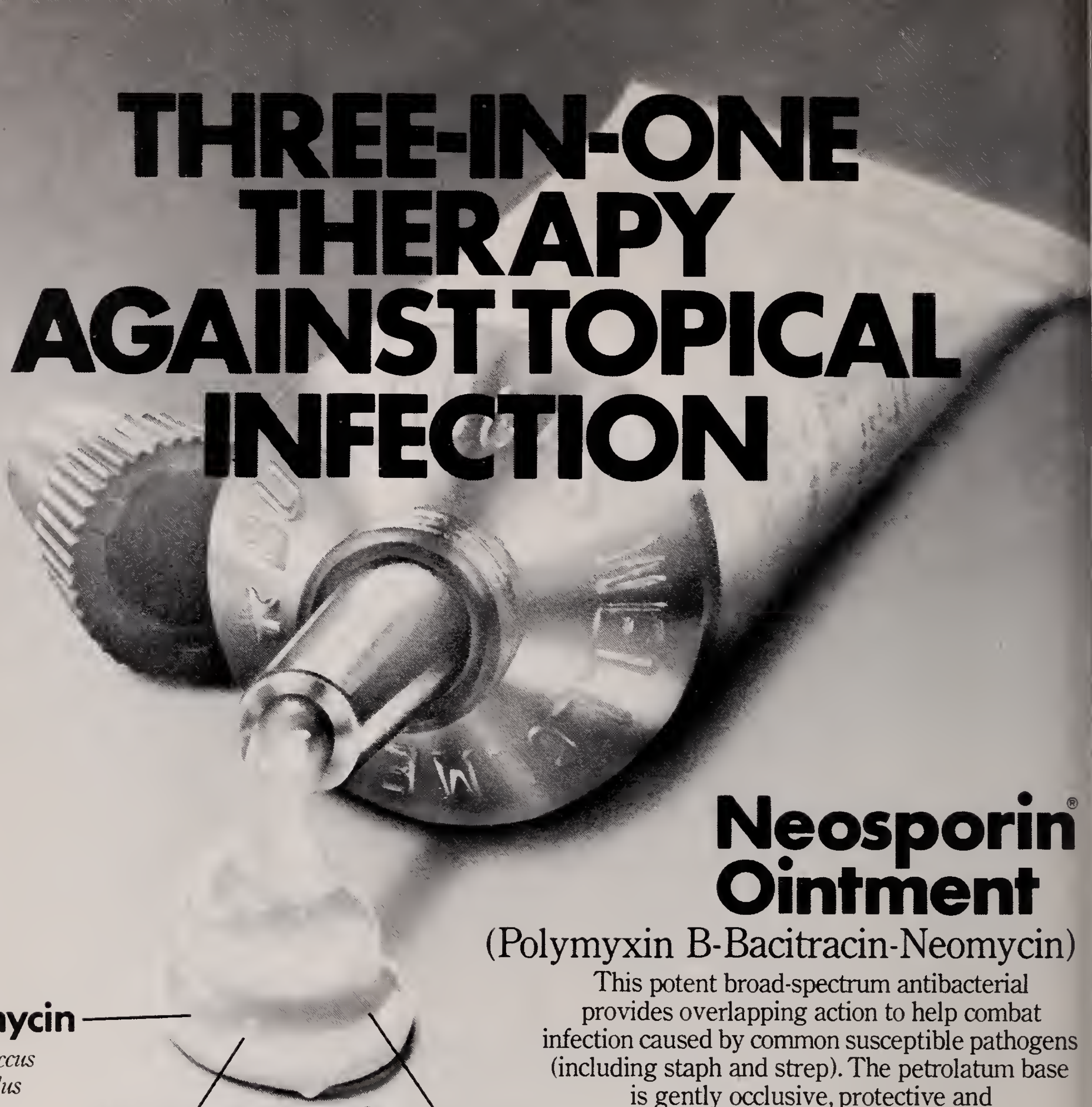
Antianxiety
Antisecretory
Antispasmodic

Librax is unique among G.I. medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.*

Librax has been evaluated as possibly effective for this indication.
Please see brief summary of prescribing information on preceding page.

ROCHE

# THREE-IN-ONE THERAPY AGAINST TOPICAL INFECTION



## Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

This potent broad-spectrum antibacterial provides overlapping action to help combat infection caused by common susceptible pathogens (including staph and strep). The petrolatum base is gently occlusive, protective and enhances spreading.

| **Neomycin** | **Bacitracin** | **Polymyxin B** |
|---|---|---|
| *Staphylococcus* | *Staphylococcus* | *Pseudomonas* |
| *Haemophilus* | *Corynebacterium* | *Haemophilus* |
| *Klebsiella* | *Streptococcus* | *Klebsiella* |
| *Aerobacter* | *Pneumococcus* | *Aerobacter* |
| *Escherichia* | | *Escherichia* |
| *Proteus* | | |
| *Corynebacterium* | | |
| *Streptococcus* | | |
| *Pneumococcus* | | |

*In vitro* overlapping antibacterial action of Neosporin® Ointment (polymyxin B-bacitracin-neomycin).

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

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## Neosporin® Ointment

(Polymyxin B-Bacitracin-Neomycin)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

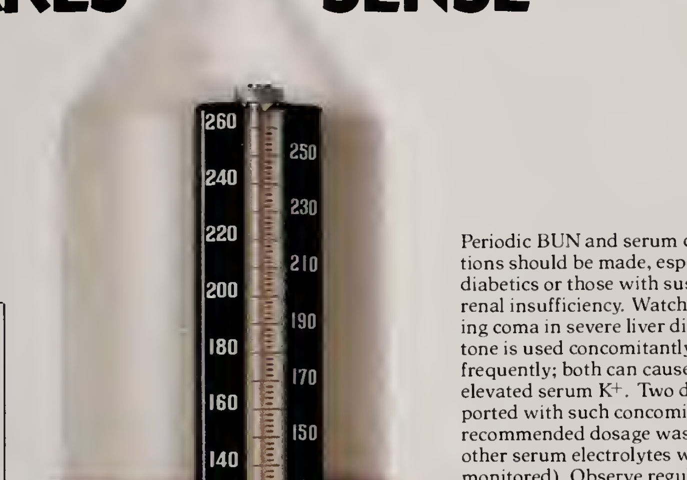
Complete literature available on request from Professional Services Dept. PML.

# TRIAMTERENE CONSERVES POTASSIUM WHILE HYDROCHLOROTHIAZIDE LOWERS BLOOD PRESSURE

# DYAZIDE®

Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

## MAKES SENSE



**Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:**

* Warning
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

**Contraindications:** Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum $K^+$ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict $K^+$ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum $K^+$ frequently; both can cause $K^+$ retention and elevated serum $K^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

**Supplied:** Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL OF HYPERTENSION:***
**SERUM $K^+$ AND BUN SHOULD BE CHECKED PERIODICALLY.**
**(SEE WARNINGS SECTION.)**

SK&F CO., Carolina, P.R. 00630

**SK&F CO.**
a SmithKline company

# OLBY PROCLAIMS WOMAN SUFFRAGE

Signs Certificate of Ratification at His Home Without Women Witnesses.

MILITANTS VEXED AT PRIVACY.

Wanted Movies of Ceremony, But Both Factions Are

WASHINGTON, Aug. 26, 1920—

# Social Security Bill Is Signed; Gives Pensions to Aged, Jobl

Roosevelt Approves Message Intended to Benefit 30,00 Persons When States Adopt Cooperating Laws—He C the Measure 'Cornerstone' of His Economic Progra

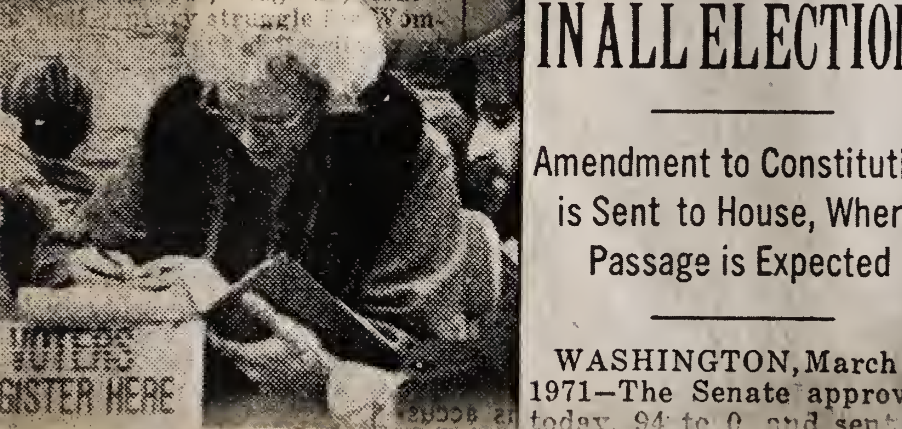
WASHINGTON, Aug. 14, The Social Security Bill, pr a broad program of unempl insurance and old age pe and counted upon to benef 20,000,000 persons, became day when it was signed by dent Roosevelt in the prese those chiefly responsible f ting it through Congress.

Mr. Roosevelt cal the m "the cornerstone which is being me s comple

# SENATE APPROVES 18-YEAR OLD VOTE IN ALL ELECTIONS

Amendment to Constitution is Sent to House, Where Passage is Expected

WASHINGTON, March 10, 1971—The Senate approved today, 94 to 0, and sent to



# TRUMAN CLOSES ED NATIONS CONFEREN TH PLEA TO TRANSLATE CHARTER INTO DEEDS

## NEW WORLD HOPE

President Hails 'Great Instrument of Peace,' Insists It Be Used

HISTORIC LANDMARK

Meeting Gives Standing Ovation as Executive Pictures Peace Gain

"If we fail to use it," he declared to the solemn final meeting of the delegates, 'we shall betray all of those who have died in order that we might meet here in freedom and safety to create it.'

"If we seek to use it selfishly—for the advantage of any one nation or any small group of nations—we shall be equally guilty of that betrayal."

Fervent Interpolation

The President, speaking in the auditorium of the War Memorial Opera House, built in memory of sons of the Golden Gate city who gave their lives in the first World War, in which he himself served, seemed to give unconscious expression to the solemn feeling of the occasion when, at the outset of his speech, he interpolated the words, half a hope, half a prayer:

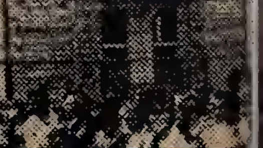
"Oh, what a great day this can be in history!"

Just before the plenary session

# UL SIGNE the Draf Ends No

COM

WASHINGTON, Jan. 27, 1973—"With the signing of the peace agreement in Paris today, and after receiving a report from the



# PATIENT PACKAGE INSERTS: A CONCEPT WHOSE TIME HAS COME?

*The consumer's right to know is an irreversible and desirable trend of the Seventies. It extends, and properly, to a patient's right to know more about his or her prescription medications. One way, gaining favor, is through patient package inserts. Wisely-prepared and properly distributed when medically indicated, they could markedly improve patient knowledge and drug therapy—laudable goals by anyone's standards.*

*The PMA endorses these goals and will work with government, the health professions and consumers to achieve them.*

## The Advantages

The concept holds promise of benefits: better patient understanding of the product prescribed, better adherence to the treatment plan, and more awareness of possible side reactions.

Every doctor has had patients who fail to finish antibiotic regimens because they feel better. Some patients assume that if one tranquilizer or analgesic is good, two may be twice as good. Still others fail to report dizziness while on antihypertensive therapy —and so on.

Problems like these might arise less often if the patient received written information in addition to verbal instructions. Some studies suggest that patients are more receptive to such materials, and they more often understand the verbal instructions and follow them, when inserts are used.

## The Disadvantages

There are also some potential problems. Obviously, the inserts must be clearly phrased, without extraneous or complex detail. How much information is enough? How can it be kept current? Should all patients receive the same information? Should inserts be included with all drugs? Should only potential problems be listed or are patients better off with a "fair balance" presentation that describes usefulness as well as drawbacks?

These and similar questions require answers, since model inserts have yet to be properly developed and tested. Despite the need for these studies, the FDA is proceeding prematurely with inserts on selected products. We think the Congress is the only place where the matter can be given the proper legal status and direction, particularly since it represents a conceptual change in the legal, medical and social framework of the nation's prescription drug information system.

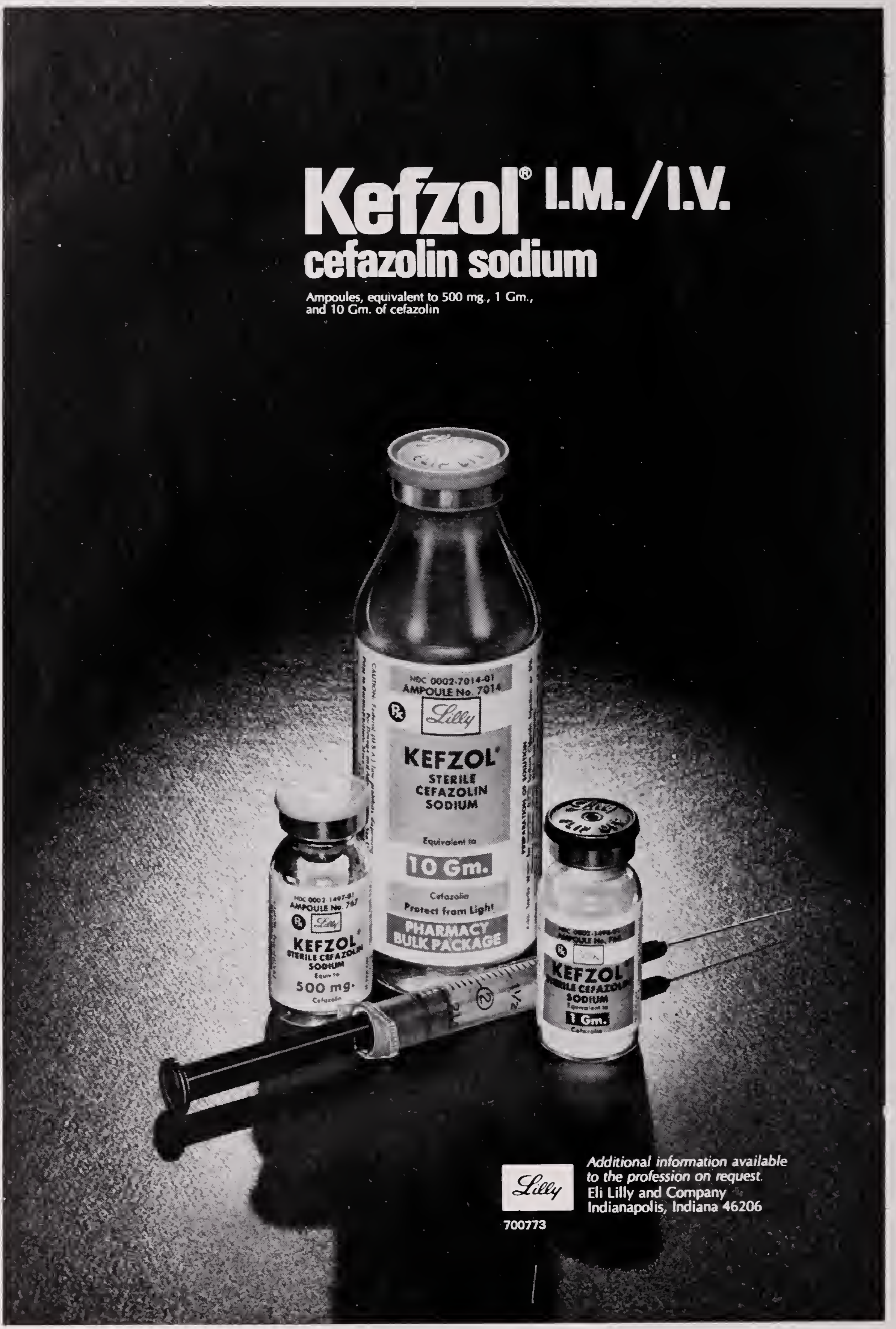
## The Solution

The PMA believes that carefully-devised pilot studies of various kinds of inserts are needed. They should be developed and implemented with full participation by doctors, pharmacists, consumers, communications experts and the drug industry. Such studies will provide reliable pathways to follow, so that inserts will be useful aids to medical practice.

And particularly we think that you should be closely involved in this debate and in these studies and decisions. Otherwise, people with less experience and qualifications may control the purposes, content and use of a tool with considerable promise for improved patient care. It could make a difference in your practice tomorrow, and more importantly, in the health of your patients.

PMA

THE PHARMACEUTICAL MANUFACTURERS ASSOCIATION
1155 FIFTEENTH ST., N. W., WASHINGTON, D. C. 20005



**Kefzol® I.M. /I.V.**
**cefazolin sodium**

Ampoules, equivalent to 500 mg., 1 Gm.,
and 10 Gm. of cefazolin

*Additional information available to the profession on request.*
Eli Lilly and Company
Indianapolis, Indiana 46206

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1 Gm.
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Lilly

Volume 75, Number 4—April, 1978

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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**E. DALE EVERETT, M.D.**, *Columbia*

# Infective Endocarditis

INFECTIVE ENDOCARDITIS is not a common disease, but it occurs with such frequency that most physicians will encounter cases during the course of their practices. Valid data concerning the exact incidence of endocarditis do not exist, but the disease is estimated to account for about 0.3% of admissions to a large medical center. During the past four months, an average of two patients with infective endocarditis have been admitted per month to the University of Missouri-Columbia Medical Center. The purpose of this paper is to summarize our current understanding of the pathogenesis, diagnosis, management and prevention of infective endocarditis.

## PATHOGENESIS

For clinical purposes, infective endocarditis is usually divided into acute and subacute disease based on the mode of onset, duration of the illness, toxicity of the patient and, to some degree, the causative organism. This classification has some useful implications when deciding initial therapy, urgency of beginning treatment and ultimate prognosis.

In the classic case of subacute endocarditis, four mechanisms are operative in the initiation and localization of the process. They are a previously damaged heart valve or a hemodynamic situation where blood flows from a high pressure zone to a relatively low pressure area, e.g., ventricular septal defect; the formation of a sterile fibrin-platelet thrombus as a result of endothelial damage related to the intrinsic valvular disease or jet effect of blood; bacteremia, often transient, leading to contamination of the thrombus; and a high titer of agglutinating antibody for the offending organism which increases the inoculum size to the damaged area.[1]

While the foregoing sequence of events seems to adequately explain the cause of most cases, it fails to provide explanation for the occurrence of endocarditis on normal valves. Some insight into the latter phenomenon has recently been elucidated by data which indicate that organisms commonly causing endocarditis exhibit a property of increased adherence to the endothelial surface of valve leaflets.[2]

## DIAGNOSIS

The cardinal features of infective endocarditis are fever, heart murmur and evidence of embolic phenomena with fever being the most consistent. Findings such as petechiae, Osler's nodes and Roth's spots are much less common today than when the disease was observed throughout its natural history. Splenomegaly occurs in less than one half of patients.[3] If one relies upon the development of many of these clinical manifestations classically ascribed to endocarditis, the diagnosis will be considerably delayed or missed in a significant number of patients. One should further be aware that up to one third of patients with endocarditis will not have a murmur at the time of admission to the hospital although the majority will develop a murmur during the course of the illness, usually within the first two weeks.[3-5] The absence of a murmur is particularly common in tricuspid endocarditis in which pulmonary signs and symptoms are frequently the pre-

**The incidence of infective endocarditis has remained relatively stable over the years and occurs with sufficient frequency for most physicians to encounter cases. A high index of clinical suspicion must be maintained to diagnose the disease and careful attention must be given to isolation of the causative organism. The author summarizes current understanding of the pathogenesis, diagnosis, management and prevention of this disease. Dr. Everett is Professor and Director, Division of Infectious Diseases, University of Missouri Medical Center.**

dominant features.

The major complaint of a patient may suggest a disease process which leads the physician away from the diagnosis. Unusual modes of presentation include brain abscess, meningitis, stroke, psychosis, subarachnoid hemorrhage, thrombophlebitis, peripheral vascular occlusion, arthritis and renal disease.[3, 5, 6] Certain categories of patients should be more suspect than others for endocarditis, i.e., the elderly patients with prosthetic valves, intravenous drug abusers and hemodialysis patients.

The most important aspect in the diagnosis of endocarditis is isolation of the etiologic organism and, with rare exception, this depends upon positive blood cultures. In 1945, Beeson *et al* demonstrated at least two salient points concerning the bacteremia of endocarditis which are still valid today; there are virtually always some bacteria in the blood stream of patients with endocarditis and that arterial blood cultures offer no advantage over antecubital venous cultures.[7] From a clinical standpoint, this means that a blood culture at anytime, whether or not it is correlated with fever, will usually be positive and that several blood cultures positive for the same organism over an extended time is the rule. This demonstration of "continuous" bacteremia is very important diagnostically, particularly in atypical cases of endocarditis.

The optimal number of blood cultures to collect from patients suspected of having endocarditis is not firmly established. The usual recommended range varies from two to six.[3, 8, 9] If the etiologic agent is to be isolated, it will be found in the first two cultures in about 98% of cases.[8] Despite this high isolation rate in the first two blood cultures, more than two should be obtained for the following reasons: (a) organisms that commonly cause endocarditis are also ones that frequently contaminate blood cultures. Therefore, if isolated in one of two blood cultures, may result in false positive or negative misinterpretation and (b) the demonstration of sustained bacteremia is diagnostically important in substantiating the presence of an intravascular infection. Four sets of blood cultures, one in a vented and one in an unvented bottle, would appear to provide the above crucial information and also increase the positive yield to 99%-100%. In the subacutely ill patient, these may be obtained at intervals of every two to six hours, but the time sequence should be compressed considerably in the acute case. Should the initial cultures be negative, and the diagnosis remains a strong possibility, various modifications of culture techniques as described below should be employed rather than obtaining large numbers of routine blood cultures.

Despite attempts to isolate causative organisms, most series contain a substantial number of patients (2.5%-31%) with culture negative disease. Cannady and Sanford have recently reviewed this problem. Causes of negative blood cultures include endocarditis on the right side, very "chronic" subacute bacterial endocarditis, uremia, mural endocarditis, poor bacteriologic technique, prior antimicrobial administration, Q-fever, psittacosis and fungal disease.[10] When faced with the problem of culture negative endocarditis, certain studies or modification of culture technique may be of value. These include increasing the volume of broth and blood, i.e., using 100 ml bottles of broth and adding 10 ml of blood rather than the commonly used 50 ml bottles and 5 ml of blood, culture in liquid media without sodium polyanethol sulfate (contained in many commercially available blood culture systems), use of biphasic media, hypertonic media and holding blood cultures for 30 days rather than the customary seven to 14 days. Serologic studies should be obtained for brucella, Q-fever, fungi and psittasocis.

Ancillary measures that may be supportive in the diagnosis of endocarditis are echocardiography, rheumatoid factor, teichoic acid antibodies, immunofluorescence of the skin and demonstration of circulating immune complexes.[11-15]

## Management

There have been a number of therapeutic regimens proposed and used in infective endocarditis. Many organisms have been reported to cause endocarditis, but viridans streptococci, staphylococci and enterococci remain the most common etiologic agents. In the intravenous drug-abuse population, Gram negative rods, mainly pseudomonas, are also common. Knowing the statistically most common causes of endocarditis is helpful when one needs to begin antimicrobial agents prior to organism isolation or identification or both.

Commonly accepted and effective regimens are as follows:

1. Sensitive streptococci ($< 0.1$ mcg/ml penicillin)—Parenteral, aqueous penicillin G, 20,000,000 units daily for four weeks combined with an aminoglycoside (streptomycin or gentamicin) during the first two weeks of therapy.
2. *Staphylococcus aureus*—A parenteral semisynthetic penicillin (methicillin, oxacillin, nafcillin, etc.) 12 gm daily for six weeks.
3. Enterococci *(Streptococcus faecalis)*—Penicillin (20,000,000-40,000,000 units per day) or ampicillin (12 gm-16 gm daily) plus an aminoglycoside (streptomycin or gentamicin) for six weeks.

Experience with therapy for other causes of endocarditis is more limited and usually guided by in vitro sensitivities and selection of drugs that are synergistic in vitro. It is imperative to choose drugs which kill rather than simply inhibit the organism in order to achieve a high rate of cure. One can test this in vitro by ascertaining the concentration of drug necessary to kill the organism (minimal bactericidal concentration). From other's experience, determination can then be made regarding whether the level of drug is achievable in vivo or actually measure the level of drug in the patient's serum. Perhaps more practically, one can determine at what dilution the patient's serum will kill the organism isolated (serum killing power). A generally accepted but largely unproven principle is to achieve a concentration of drug in the serum which will kill the organism when the serum is diluted to $\geq 1 : 8$. Support for this concept has recently been reported in a rabbit model of endocarditis.[16]

A situation which not uncommonly arises is that of an acutely ill patient who requires therapy prior to culture results. Under these circumstances, it would seem prudent to administer three drugs—penicillin, a semisynthetic penicillin and an aminoglycoside with antipseudomonas activity.

Another commonly encountered setting is the patient with alleged penicillin allergy. Certain limitations are inherent to regimens other than penicillin. Therefore, a careful history of the nature of the penicillin allergy should be obtained. Suitable drugs under these circumstances may be a cephalosporin or vancomycin. There may be a necessity to desensitize the patient to penicillin. Although no standard method has been established for this procedure, a reasonable approach has been outlined.[17]

In cases of culture negative endocarditis, therapy is initially directed against the enterococcus and then modified according to the clinical response.[10] Finally, there are certain patients who require surgical intervention during their illness, particularly when the aortic valve is involved. Despite early reluctance, it is now feasible to operate in the face of active endocarditis. General indications for surgery include congestive heart failure, resistant infection, embolization and drug toxicity.[18]

## Prevention

Most valvular or congenital heart lesions, with the exception of secundum type atrial septal defect, put the patient at increased risk for the development of endocarditis. Because transient bacteremia plays an intimate role in the pathogenesis of endocarditis, an attempt at prevention by administration of prophylactic antimicrobial agents has been recommended. There are many causes of transient bacteremia, some of which occur with patients' daily routines, i.e., toothbrushing, and obviously cannot be treated prophylactically.[19] Although there are no controlled series to indicate prophylactic antibiotics prevent endocarditis, it seems prudent to administer them to patients who are undergoing procedures in which the incidence of induced transient bacteremia is high. The reader is referred to the recommendations by the American Heart Association for indications and prophylactic regimens.[20] A parenteral regimen is preferable to an oral regimen when this is at all feasible.

## References

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*(Continued on page 174)*

**TED GROSHONG, M.D.,** ***Columbia***

# Hypertension in Children and Adolescents

## *Case Reports*

Hypertension is being increasingly recognized as a major health hazard in children and adolescents. While its frequency in the general population varies with individual studies and with the age, race and socioeconomic status of the individual, it is a problem being seen with increasing frequency in the offices of pediatricians and family doctors.[1]

A confusing aspect of hypertension for most physicians involves the depth and timing of a thorough work-up, considering the huge variety of diseases responsible for high blood pressure in children.

Illustrative of the many diagnoses seen in children with hypertension are a series of selected case reports taken from the Outpatient Clinic, Department of Child Health, University of Missouri-Columbia Medical Center over the last ten years.

### Case Reports

**Case #1** A ten-year-old boy was noted at three days of age to have bilaterally palpable kidneys. At 18 months of age, he was found to be hypertensive with a blood pressure of 220/180. Intravenous urograms showed enlarged kidneys with multiple cysts, diagnostic of polycystic kidney disease, infantile type (Fig. 1).

His clinical course has been quite benign. He has a large, very hard liver but normal growth and development. Serum creatinine level is currently 1.2 mg/100 ml and blood urea nitrogen (BUN) 34 mg/dl. He is currently being treated with reserpine and hydrochlorothiazide and has a blood pressure of 132/82.

*Comment.* A variety of congenital renal disorders are associated with hypertension, including infantile polycystic kidney disease, isolated cysts, hypoplastic and dysplastic kidneys and hydronephrosis. The finding of hypertension and a renal mass mandates a prompt evaluation including an intravenous urogram for all such children.

While at one time the prognosis of infantile polycystic kidney disease was considered to be dismal, recent studies have indicated that these children may live normal lives for a prolonged period of time. The addition of renal transplantation to correct renal abnormalities and porta-systemic shunting to relieve hepatic disease has proven beneficial in a large number of such children.[2] Prompt, effective medical management of hypertension, however, is mandatory to prevent progressive loss of renal function as well as disease of other organ systems.

**Case #2** This patient is a 15-year-old white girl with a strong family history of hypertension. She was noted to have a blood pressure of 140/100 two years prior to admission. She received medication of an unknown type, which she took irregularly. Subsequent blood pressures continued to be elevated, but the patient had no complaints. She is a very active and athletic young lady.

At the time of admission, she demonstrated a blood pressure of 140/100, and funduscopic examination showed A-V nicking. An electrocardiogram showed mild left ventricular hypertrophy. Urinalysis was normal with the exception of 150 mg/dl of protein. Blood urea nitrogen and serum creatinine values were 10 mg/dl and .6 mg/dl, respectively. Creatinine clearance was 113 ml per minute, and her 24-hour urinary protein was 750 mg. An intravenous urogram was entirely normal and a percutaneous renal biopsy demonstrated interstitial scarring and focal proliferative glomerulonephritis. She is now normotensive and asymptomatic and is taking hydrochlorothiazide.

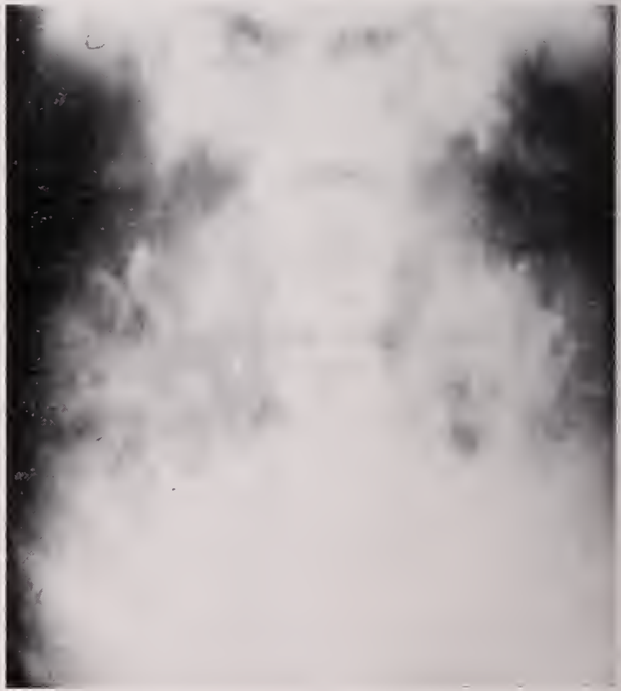

**Fig. 1 Tomography of an intravenous urogram demonstrating enlarged kidneys bilaterally. Contrast material in the periphery indicates the presence of cortical cysts and is suggestive of polycystic kidney disease.**

**Hypertension is being increasingly recognized in children and adolescents. A wide variety of diseases may be responsible for hypertension or elevated blood pressures may be found in adolescents as a result of essential hypertension. The author reports several cases which exemplify the common causes of high blood pressure in children and offers suggestions regarding the timing and depth of clinical evaluation. Dr. Groshong is Assistant Professor, Department of Child Health, and Associate Director of the Clinical Research Center at the University of Missouri School of Medicine.**

*Comment.* It is commonly recognized that intrinsic parenchymal renal disease is a common cause of juvenile hypertension. This includes chronic interstitial nephritis (chronic pyelonephritis) and most particularly, chronic glomerulonephritis. The later diagnosis, no doubt, constitutes a variety of disease processes which is poorly differentiated because the etiology and pathogenesis are poorly understood. Children with acute poststreptococcal glomerulonephritis and Henoch-Schoenlein purpura will frequently have hypertension. This, however, is an acute, self-limited disorder in almost all cases and results in spontaneous return of blood pressure to normal. It is generally not considered in one's differential diagnosis of chronic hypertension.

Diagnosis of chronic parenchymal renal disease is greatly aided by an accurate urinalysis and some measure of urinary function (BUN, serum creatinine) as well as an elevated 24-hour urinary protein excretion. Unfortunately, the current methods of treatment are of uncertain benefit in these conditions. However, certain risk factors such as hypertension can clearly be associated with a progression of renal disease. Conversely, current methods of treatment can be expected to prolong useful life and add prognostic capabilities to the physician caring for such children.

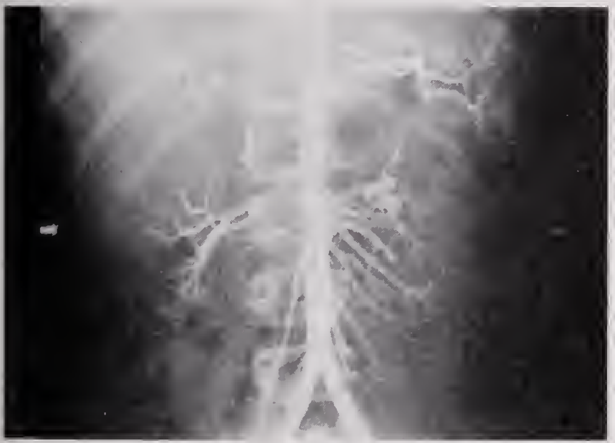

Fig. 2 Arteriogram shows stenosis with aneurysm formation of the left renal artery. Suggests renal arterial dysplasia.

**Case #3** On routine examination, this eight-year-old girl was found by her physician to have a blood pressure of 162/106. She had been complaining of episodic headaches and abdominal pains for approximately three years.

On physical examination, her blood pressure was 166/120. She had normal funduscopic findings except for A-V nicking and thinning of arterioles. A bruit was noted posteriorly over the left flank. Laboratory evaluation included a BUN value of 12 mg/dl and creatinine of .6 mg/dl. Urinary protein was 200 mg in 24 hours and creatinine clearance was entirely normal. Urinary vanillylmandelic acid and total metanephrines were within normal limits. A renal arteriogram (Fig. 2) demonstrated renal arterial dysplasia with stenosis, and a small aneurysm. She received a regimen of hydralazine, hydrochlorothiazide and propranolol. She is currently normatensive (130/82) and without symptoms.

*Comment.* Renal arterial stenosis is a common cause of hypertension in children of all ages, but most particularly in children in younger age groups.[3] While headaches, dizziness and more severe neurologic findings occasionally occur in children with severe hypertension, the onset of this disease is usually insidious. Careful evaluation of the abdomen for a bruit is most helpful in raising a physician's suspicion that renal artery stenosis is responsible for a child's hypertension. Family history may also be helpful in that renal arterial dysplasia frequently follows a familial pattern.

Intravenous pyelography, even when rapid sequence films are obtained, is frequently not of value in diagnosing this condition. Renal arteriography is the only sure way to identify the presence of stenosis.[1] However, experience in adults, as well as children, has shown that the mere finding of arterial disease is not adequate to insure that surgical removal of the affected kidney or reconstruction of the affected artery will be of benefit. Split renal vein renin studies are mandatory. This patient had clear lateralization of renin output to the left kidney when split renal vein renin determinations were performed. It can be anticipated that surgery would have a high likelihood of success. Many clinicians, however, would prefer to treat patients medically if it is possible to do so. This patient's hypertension was easily controlled with antihypertensive medications and surgery was deferred.

Case #4 A seven-year-old girl was admitted to the hospital following her parent's complaint that her abdomen was increasing in size and appeared asymmetric. She had been well prior to this admission, but decreased activity and appetite had been noticed for the preceding two months.

On admission she was noted to have a large mass on the right side of her abdomen (Fig. 3). Her blood pressure was noted to be 140/94. A chest x-ray showed small densities in the right lower lung. At laparotomy, a large mass was noted in the right flank. Histologically, it was identified as a nephroblastoma and was completely removed. Postoperatively her blood pressure was 90/72.

Following treatment with chemotherapy and irradiation she underwent complete remission of her disease and is currently well five years later.

*Comment.* A variety of renal tumors are associated with hypertension, including Wilm's tumor and renal cell carcinoma.[4] In many cases secretion of the renal hormone renin is responsible.[2] Removal of these tumors is generally associated with a prompt return of blood pressure to normal levels. The hemangiopericytoma, a rare tumor seen in adolescents, is a primary renin producing tumor.

Any child found with an abdominal mass requires vigorous and extensive evaluation. The additional finding of hematuria or hypertension should lead one to suspect that a Wilm's tumor requiring specialized medical and surgical care, is present.

Case #5 A 17-year-old boy was seen at age 15 years for hypertension, known to have been present for one month. On admission, his blood pressure was 170/100. He had a grade 3/6 systolic ejection murmur which radiated to the carotids and a grade 2/6 systolic ejection murmur at the left axilla. Examination of the femoral pulses demonstrated them to be weak bilaterally. His brachial pulses were bounding. Laboratory evaluation was entirely within normal limits, and an electrocardiogram showed left ventricular hypertrophy. Cardiac catherization demonstrated a thoracic coarctation of the aorta which was repaired by a patch graft shortly thereafter (Fig. 4). Over the course of the next one and one-half years blood pressure slowly returned to normal values. He is currently receiving no medications.

*Comment.* Extra renal causes of hypertension in children constitute less than 20% of patients with secondary hypertension. Diagnoses seen infrequently include pheochromocytoma, brain tumors and tumors of the adrenal cortex.

Among the most common extra renal causes of hypertension is coarctation of the aorta.[1] While most children with this disease develop symptoms of heart failure in infancy, less severe coarctations of the thoracic and abdominal aorta may not appear until later in childhood. All children with

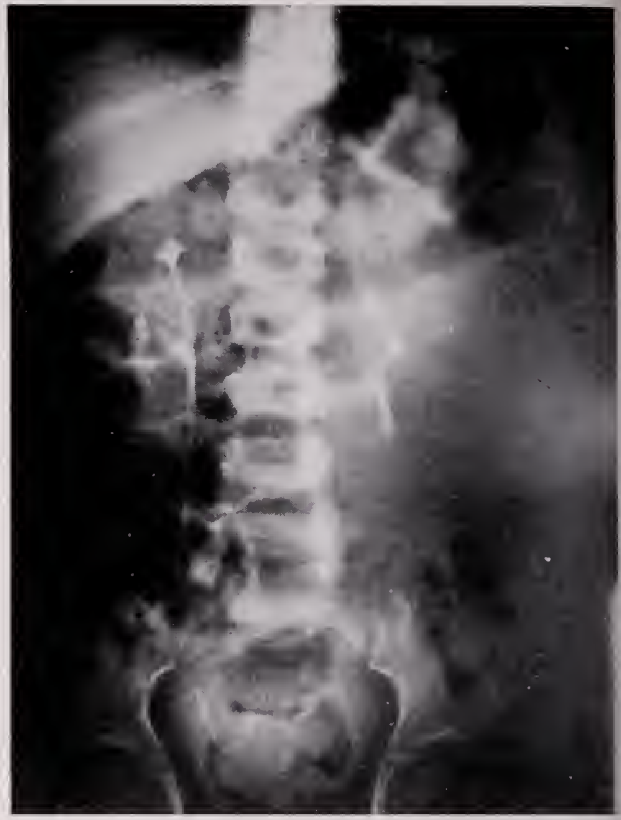

Fig. 3 Intravenous urogram shows evidence of a large left renal mass with stretching of the calyceal system indicating presence of Wilm's tumor.

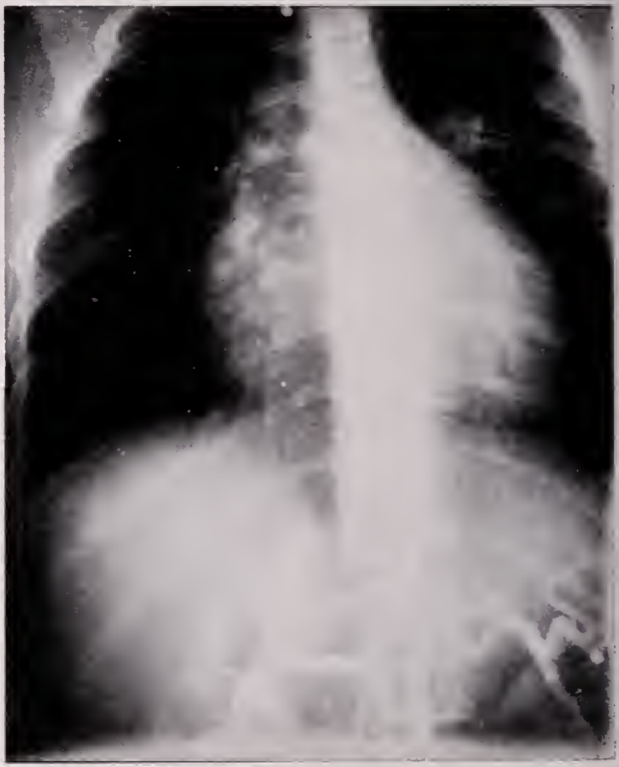

Fig. 4 Narrowing of the aorta consistent with thoracic aortic coarctation.

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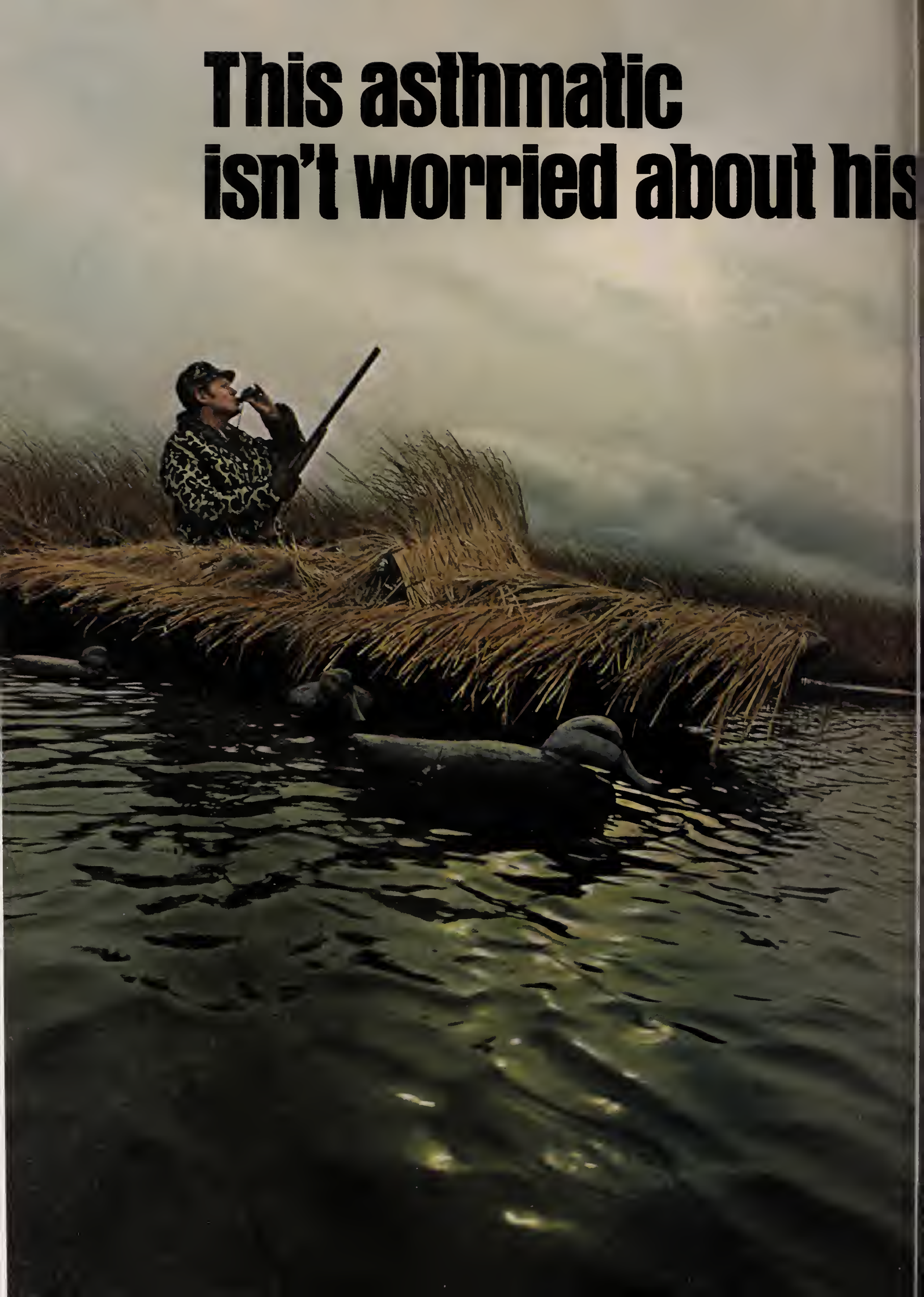

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**Reference** 1. Data on file Mead Johnson Pharmaceutical Division.

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**Adverse Reactions:** Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 $\mu$g/ml.
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### TABLE 1

### RECOGNIZED CAUSES OF HYPERTENSION IN CHILDREN AND ADOLESCENTS

A. Extra Renal
    1. Coarctation of the aorta
    2. Pheochromocytoma
    3. Tumors of the adrenal cortex (Aldosteronism, Cushing's disease)
    4. Porphyria
    5. Hypercalcemia
    6. Increased intracranial pressure
    7. Familial dysautonomia
    8. Adrenogenital syndrome
B. Renal Parenchymal Disease
    1. Chronic interstitial nephritis
    2. Chronic glomerulonephritis
    3. Hemolytic-uremic syndrome
    4. Radiation
    5. Collagen disease
C. Renovascular
    1. Renal artery stenosis
    2. Renal vein thrombosis
    3. Systemic vasculitis
D. Renal Masses
    1. Wilm's tumor
    2. Renal cell carcinoma
    3. Polycystic kidney disease
    4. Hydronephrosis
    5. Segmental hypoplasia

hypertension must be evaluated for the presence of a heart murmur, normal peripheral arterial pulses and blood pressure in all extremities to rule out a possible coarctation.

Case #6 A 16-year-old black boy was followed since infancy for a seizure disorder of uncertain etiology. He has been treated with Dilantin and phenobarbital. He was first noted at age 12 years to be hypertensive (blood pressure 120/90-134/100). A strong family history of hypertension was obtained.

Evaluation of this patient demonstrated normal values in BUN (17 ml/dl), serum creatinine (1.3 ml/dl), creatinine clearance, serum electrolytes, urinary vanillylmandelic acid and a normal intravenous urogram. Studies of renin activity were also noted to be within normal limits. An electrocardiogram demonstrated mild left ventricular hypertrophy.

The patient received antihypertensive medications. Ten years later, his current blood pressure is 130/80.

*Comment.* Essential hypertension is being increasingly recognized in children and adolescents, particularly among blacks and Latin Americans.[5, 6] It is becoming increasingly evident that the majority of hypertensive adolescents, in fact, have essential hypertension.[7] This is particularly true when individuals have a strong family history of high blood pressure, strokes, and coronary heart disease.

The development of essential hypertension in adolescents presents the grim prospect of those patients developing severe renal or cardiovascular disease in young adulthood. Prompt institution of medical therapy may result in a normal or near normal prognosis. As a result, the identification of such children at the earliest possible age is most important for their future health.

## Discussion

As can be ascertained by the foregoing case reports, the causes of hypertension are legion. Many are exceedingly rare, such as pheochromocytoma, adrenal cortical tumors, and hemangiopericytoma. Others, such as renal arterial stenosis, chronic glomerulonephritis, coarctation of the aorta and renal dysplasia, are much more common (Table 1). With so many diagnostic possibilities, the clinician is faced on the one hand with the unenviable task

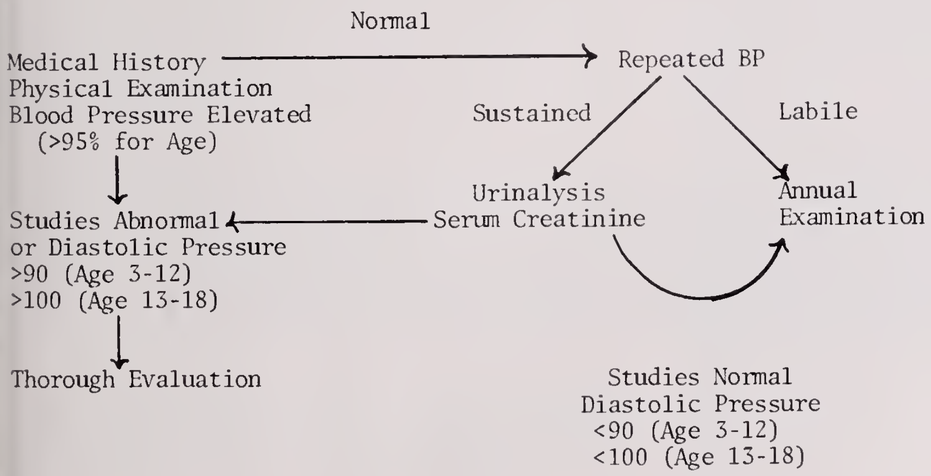

**Fig. 5** Suggested flow chart for evaluation of children with hypertension. Patients with elevated blood pressure and normal medical history and physical examination should have repeated blood pressures to determine whether hypertension is labile or sustained. If sustained urinalysis and serum creatinine is probably adequate if mild hypertension is present. If medical history, physical examination, or laboratory studies are abnormal, or if diastolic pressures are consistently moderately to severely elevated a thorough examination is required.

of attempting to rule out the various forms of secondary hypertension, to prevent more serious progressive systemic disease and to obviate the need for life-long antihypertensive therapy. On the other hand, expensive and often dangerous diagnostic studies are not indicated when essential hypertension is present. The Task Force on Blood Pressure Control in Children has recently addressed this problem.[8] It has attempted to develop criteria for determining which patients merely require annual follow-up, which patients require a minimum of laboratory investigations and which patients should undergo more extensive investigation. An abbreviated schema is depicted in Fig. 5.

Most aspects of an initial investigation do not require specialized medical care and can be performed by any practicing physician caring for children. More complex studies are available only at relatively large medical centers. In all cases, however, initial identification of patients at risk for hypertension require the annual determination of blood pressures in all children over the age of three years.

Adequate antihypertensive therapy is now available for children with elevated blood pressures from mild to extreme severity. These medications, which are tested primarily in adults, are both effective and safe for use in older children. While undesirable side effects occur with all such agents, skilled manipulation of these drugs can minimize these side effects and return a child to normal activity.

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# *Infective Endocarditis*

*(Continued from page 169)*

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More than $5.3 million in guaranteed loans for medical students and $1.18 million in grants to medical schools were made possible by the AMA Education and Research Foundation during the first nine months of last year. During that period, approximately 3,800 students and physicians-in-training benefited from the AMA-ERF guaranteed loan fund.

W. N. BASKIN, M.D. *and* K. J. IVEY, M.D., *Columbia*

# Long-Term Therapy for Severe Peptic Ulcer Disease With $H_2$-Receptor Antagonists

## *Case Report*

THE $H_2$-RECEPTOR ANTAGONIST, cimetidine (Tagamet), has been released by the FDA for acute management of duodenal ulcer disease in the United States. Its use has raised a number of important questions regarding the chronic management of the duodenal ulcer patient. Some authorities have recommended long-term maintenance therapy with $H_2$-receptor antagonists for all patients with peptic ulcer disease. On the other hand, it is not known if these powerful agents will have serious side effects if given long term. Others have reported a "rebound" of peptic ulceration after episodic $H_2$ blocker therapy.[1] We report one carefully studied patient with severe peptic ulcer diathesis treated intermittently with $H_2$-receptor antagonists.

### CASE REPORT

Our patient, a 42-year-old white male physician, presented to the University of Missouri-Columbia Gastrointestinal Service in July, 1975 with exacerbation of his chronic duodenal ulcer symptoms. His symptoms began in medical school in 1959. He noted preprandial epigastric pain, which increased with stress and decreased after meals or antacids. An upper gastrointestinal bleeding episode with a drop in hematocrit to 32% occurred in 1961. The bleeding resolved with antacid, sedation and anticholinergics, but his pain persisted. He had similar bleeding in 1962. Between 1962 and 1968, he experienced cyclical epigastric pain, which was poorly controlled with antacids and anticholinergics. In 1968, he had two more episodes of upper gastrointestinal bleeding within six months. In 1969, he underwent a vagotomy and pyloroplasty.

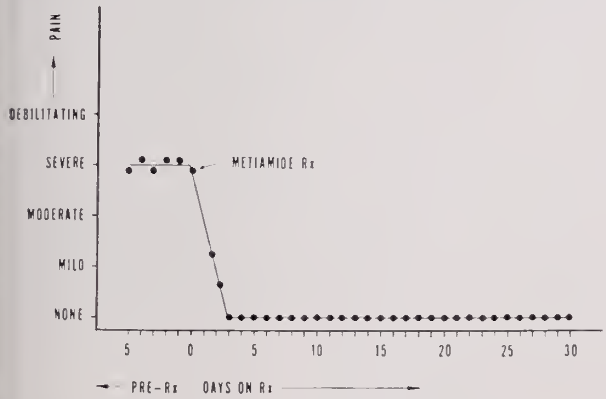

**Fig. 1** **Symptom profile. Degree of pain is represented on the vertical axis and time in days before and after beginning treatment (Rx) on the horizontal axis. Note dramatic subjective response after metiamide therapy.**

Following surgery, he was asymptomatic for nine months, but then developed recurrent episodes of preprandial and nocturnal pain, responding poorly to large doses of antacid, anticholinergics and sedation. During the next five years, the longest remission he experienced was for three months. The average length of remission was six weeks. During exacerbation of his ulcer, severe pain lasted for one to two months; two to three times per year such attacks were terminated only by resting in bed for a week at a time. At the time of presentation, his therapy consisted of large daily doses of barbiturate and valium. For pain relief, he drank nearly 4 liters of milk daily, including 500 cc nightly between midnight and 6 AM.

On physical examination, he had marked epigastric and right upper quadrant tenderness. A complete blood count and serum calcium level were normal. An upper gastrointestinal series showed a markedly deformed duodenal bulb with crater. Endoscopy showed marked duodenal bulb deformity, severe duodenitis and an active ulcer. Basal acid output (BAO) was 5.3 mEq/hr and peak acid output (PAO) was 36.5 mEq/hr on augmented histamine testing. These elevated values indicate either an inadequate vagotomy or an underlying Zollinger-Ellison syndrome. Fasting serum gastrin concentrations (performed by Prof. J. McGuigan, Department of Medicine, University of Florida, Gainesville) on several occasions ranged from 180-210 picograms % (normal upper limit, 150). A secretin stimulation test for gastrin response failed to show a rise in serum gastrin, evidence against the Zollinger-Ellison syndrome.[2] Further surgical management was completely refused.

After signing an informed consent, therapy with 300 mg of oral metiamide before meals and 400 mg at night was initiated according to a special FDA-approved protocol. The patient had a dramatic subjective response (Fig. 1). He became asymptomatic within three days and was able to reduce his milk intake to normal. Complete healing of the ulcer crater had occurred at four weeks as shown by endoscopy and an upper GI series. A marked decrease was noted in duodenitis by endoscopy. Repeat augmented histamine testing at this time while on therapy showed suppression of BAO to 1 mEq/hr and of PAO to 17 mEq/hr.

After 16 weeks of therapy, metiamide was removed

**This report describes a patient with severe peptic ulcer disease who was treated intermittently with histamine $H_2$-receptor antagonists for more than two years. The patient's symptoms and ulcer responded dramatically on three separate occasions to such therapy without any side effects or evidence of unexpected "rebound." The authors are from the Department of Medicine, Harry S. Truman Memorial Veterans Hospital and University of Missouri Medical Center. Dr. Baskin is now with the Swedish American Hospital in Rockford, Ill.**

from clinical testing nationally by the FDA due to occasional cases of agranulocytosis. Metiamide was discontinued in our patient in November, 1975. Endoscopy at that time showed no ulceration or duodenitis. The patient remained symptom free for 13 months, the longest symptom-free interval since the onset of his disease.

In late December, 1976, he again noted the onset of preprandial and nocturnal epigastric pain which was poorly relieved by antacids. Endoscopy revealed an active duodenal ulcer. An augmented histamine test showed a BAO of 11.9 mEq/hr, and PAO of 26.44 mEq/hr. Therapy was initiated with cimetidine, a non-thiourea $H_2$-receptor antagonist, with 300 mg before meals and at night. Again, his symptoms disappeared within five days. Endoscopy after eight weeks of cimetidine showed complete healing of the active ulcer and the drug was discontinued.

The patient remained symptom-free from February, 1977 to May, 1977. He then had a typical recurrence which was again documented by endoscopy. Cimetidine therapy with 300 mg before meals and at night was reintroduced and prompt remission of symptoms resulted. Repeat endoscopy after six weeks of cimetidine showed ulcer healing, and the drug was again discontinued. The patient was symptom-free when last seen in July, 1977.

## COMMENT

Prospective studies using endoscopy have shown that duodenal ulcers recur much more frequently than previously suspected. Blackwood *et al*[3] reported 100% recurrence in placebo-treated duodenal ulcer patients in six months, while Gray[4] reported approximately 50% recurrence in three months.

$H_2$-receptor blocker therapy has been shown to be effective in healing duodenal ulcers.[5-7] Our findings in this patient were consistent with published reports: prompt cessation of symptoms and endoscopically documented ulcer healing during three widely spaced therapeutic trials. There were no adverse clinical or laboratory findings with either metiamide or cimetidine therapy. There was a significant 13-month remission of symptoms after the initial metiamide trial with no evidence of ulcer "rebound," i.e., recurrence of ulcer shortly after stopping the drug. Though there was only a three-month interval between the second and third trial of therapy, this symptom-free interval was as long as any he had had prior to starting $H_2$-blocker therapy.

Preliminary work has suggested the effectiveness of bedtime cimetidine in 400 mg-800 mg doses to decrease endoscopic relapse and symptom recurrence.[3, 4] On the other hand, ulcer recurrence has been reported during and following maintenance therapy with metiamide.[1] Our patient illustrates the effectiveness of intermittent therapy in chronic recurrent disease of marked severity without significant side-effects or apparent ulcer rebound. The results of long-term trials with cimetidine, which are currently underway in several centers, will determine efficiency of chronic $H_2$-receptor blocker therapy in large groups of patients with chronic recurrent duodenal ulcer disease. In the meantime, physicians should be cautious in giving patients long-term therapy with this class of drugs.[8, 9] However, some support for the intermittent use of cimetidine in therapy of severe recurrent ulcer disease may be drawn from this case report.

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# Syndrome of Inappropriate Secretion of Antidiuretic Hormone (SIADH) Secondary to Antipsychotic Drug Therapy

## *Case Report*

Fluphenazine, an antipsychotic medication, has been associated with the Syndrome of Inappropriate Secretion of Antidiuretic Hormone (SIADH).[1] This syndrome was recently observed in a patient who was referred to the University Medical Center while being treated with that drug.

Medications which have been associated with the SIADH include promethazine, thiothixene, amitriptyline, carbamazepine, clofibrate, nicotine, vincristine, cyclophosphamide, meperidine, barbiturates and some antihypertensive medications. Several medical conditions have also been implicated: exacerbated psychosis,[2] schizophrenia,[3] oat cell carcinoma, hypofunction of the adrenal, thyroid and pituitary glands, acute intermittent porphyria, pancreatic tumors, brain tumors, tuberculous meningitis, head injuries and thoracic disorders.

### Case Report

A 24-year-old white, female college student was admitted to the Medicine Service because of disorientation, confusion, gradual increase in thirst and polyuria. Hospital records showed a five-year history of mental illness diagnosed as schizophrenia and eight previous psychiatric hospitalizations.

One month prior to admission, she received fluphenazine enanthate, being given three doses of 50 mg. at approximately two-week intervals. The only other drug prescribed for her at this time was an anti-parkinsonian medication, trihexyphenidyl.

On admission, she was confused, agitated and disoriented. Other symptoms and signs noted were grimacing, disconnected speech, short attention span, poor concentration and inability to do simple calculations. Her abstraction ability was also impaired. Her parents reported that she did not recognize them. They also stated that she had had frequent urination and a gradual increase in thirst for the week prior to admission. A physical examination elicited the following vital signs: blood pressure (BP) was 125/90 without orthostatic changes; pulse 110/min and regular; temperature 97.8 F; and she hyperventilated at the rate of 44/min. Other positive findings included slight galactorrhea of the right breast and mild acne. The remainder of the physical examination was normal.

Initial laboratory findings were normal for hemoglobin, hematocrit, blood urea nitrogen, creatinine, serum calcium and serum proteins. Spinal fluid, electroencephalogram (EEG), chest and skull X-rays were also normal. An impaired water excretion was demonstrated by serum and urine examinations which satisfied the clinical criteria for SIADH: serum sodium was 120 mEq/L (N:139-148); serum osmolality was 247 mOsm/Kg $H_2O$ (N:270-310), with urine osmolality of 458 mOsm/Kg $H_2O$ (N:500-800) and urine sodium of 153 mEq/vol (N:130-260). The urine had a specific gravity of 1.015.

Treatment consisted of fluid restriction in order to control her osmolality imbalance. Her sensorium cleared the following day on this regimen. At discharge on the fourth day, she was clinically much improved and the laboratory values were all in the normal range.

### Discussion

The clinical and laboratory examinations suggested an inappropriate ADH secretion. The clinical features presented by this patient met all the criteria of Bartter:[4]

1. hyponatremia and hypoosmolality of extracellular fluids,
2. persistence of sodium in urine despite hyponatremia,
3. absence of signs of dehydration, and
4. normal renal and adrenal function.

The SIADH has been described in psychiatry in association with certain psychoses as well as secondary to psychotropic medication. Self-induced water intoxication in psychotic individuals was reported long before Schwartz[5] described the syndrome in 1957. Hobson,[6] however, was the first to suggest that schizophrenia, in some cases, might induce SIADH because of a related autonomic dysfunction in the hypothalamus.

Dubovksy[2] reported that the onset and remission of SIADH in one of his patients was closely related to the onset and resolution of two separate acute psychotic breaks. Raskind[3] reported four cases of acute psychosis in menopausal and postmenopausal women accompanied by SIADH and increased water ingestion, a combination which suggested to him a disturbance in limbic system function perhaps involving dopaminergic hyperactivity.

From the physiological point of view, central osmoreceptors in the supraoptic nuclei detect changes in body fluid tonicity and regulate ADH secretion accordingly. Acetylcholine and the catecholamines are also involved in the process. Dopamine may be particularly important as indicated by studies in rats which show that the depletion of dopaminergic neurons in the nigrostriatal bundle by 6-Hydroxydopamine produces adipsia. Further, haloperidol, an antipsychotic known for its dopamine blocking effect, also produces adipsia when injected in the lateral hypothalamus or septal area and blocks thirst induced by water restriction. Acetylcholine (which is the central neurotransmitter for thirst), dopamine and isoproterenol are considered dipsogens, while dopamine blockers (like haloperidol), anticholinergics (such as atropine) and alpha and beta adrenergic blockers have an antidipsogenic effect.[7]

Antipsychotic medications occasionally produce hormonal side effects such as galactorrhea secondary to supression of release of the prolactin inhibitory factor in the hypothalamus. An interesting association between stimulation of thirst, antidiuresis and galactorrhea was reported when stimulation of the anterior area of the hypothalamus in rats was found to cause all three. Stimulation within or in regions adjacent to the paraventricular and supraoptic nuclei or in the vicinity of the supraoptico-hypophyseal tract also caused, as expected, antidiuresis and galactorrhea but failed to provoke thirst. Milk ejection in these experiments always occurred when antidiuresis was elicted. These findings, therefore, suggest that the fluphenazine effect on the hypothalamus was responsible for both the galactorrhea and the inappropriate ADH secretion in our patient, with the end result being the syndrome as we saw it on admission. SIADH was probably directly the result of a dysfunction of the dopamine neurotransmission in the hypothalamus.

Some of the psychotic patients reviewed in the literature had received psychotropic medications prior to the appearance of the syndrome of SIADH including the first case presented by Hobson[6] in 1963, in which reserpine and an experimental tryptamine derivative were given. Ajlouni[8] and Derivera[1] reported cases of patients treated with thiothixene and fluphenazine who developed the syndrome of inappropriate ADH secretion.

**This syndrome occurred in a psychotic patient who was being treated with fluphenazine. Polydipsia, polyuria, disorientation and confusion associated with hyponatremic-hypoosmolality suggested the diagnosis. Diagnostic osmolality studies are necessary for the diagnosis and adequate treatment of these cases. Dr. Cordoba is Chief Resident and Fellow in Child Psychiatry and Dr. Chapel is Professor and the Head of the Child Psychiatry Section, University of Missouri School of Medicine.**

In terms of treatment, SIADH is best managed by water restriction unless neuromuscular symptoms, i.e., convulsions, are present, in which case hypertonic saline may be infused. Drugs such as lithium carbonate, demeclocycline and diphenylhydantoin have also been used with some success. Some authors report that lithium carbonate is the drug of choice for the therapy of SIADH. However, this is controversial. Demeclocycline is useful in the treatment of this condition when related to oat-cell carcinoma of the lung. Such tumors produce large amounts of an antidiuretic polypeptide biologically and physically identical to ADH (The Schwartz-Bartter syndrome). Diphenylhydantoin can be used to prevent inappropriate ADH secretion in patients with cerebral edema.

In summary, some psychotropic medications can produce SIADH or galactorrhea probably by increasing the dopaminergic neurotransmission in the neuron cells of the supraoptic or paraventricular nuclei, respectively. Osmolality studies are absolutely necessary when water intoxication is suspected. Certain symptoms like irritability, depressed sensorium, confusion and convulsions can be produced by water intoxication due to SIADH secondary to medications like fluphenazine or thiothixene.

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*(Continued on page 181)*

**RUSHDY ABADIR, M.D.** *and* **GILBERT ROSS, M.D.**, *Columbia*

# Changing Pattern of Therapy in Cancer of the Prostate

## *A Review*

**In this study, the authors review the experience of the University of Missouri Medical Center with carcinoma of the prostate with special reference to external radiation therapy and radioactive iodine-125 seed implant. They correlate this experience with the general trend in therapy pattern. Dr. Abadir is Professor and Chief of the Department of Radiation Oncology and Dr. Ross is Professor and Chief of the Department of Urology at the Medical Center.**

Carcinoma of the prostate forms 17% of all cancers in men (exceeded only by carcinoma of the lung, which is 22%). It caused 19,000 deaths in 1977 (10% of all cancer deaths in man). Of the deaths, 10,000 were in men over 75 years of age.[1]

Historically, the most important therapeutic events in the management of carcinoma of the prostate were as follows:

1. *1904:* Radical perineal prostatectomy introduced by Young.[2]
2. *1917-1940s* or early *1950s:* Radium in the urethra then by interstitial implantation of radium needles or radium seeds. The use of external, deep therapy led to the conclusion that carcinoma of the prostate was radioresistant.
3. *1941:* Huggins[3] introduced the endocrine therapy, including orchiectomy.
4. *1951:* Flocks[4] introduced interstitial injection of radioactive gold. Good results were reported, but the distribution of irradiation within the gland was irregular.
5. *1967:* VA study[5] of 1,764 cases concluded that estrogen therapy reduced survival (40% vs 60%). Randomization of therapy was into four groups:
   a. Orchiectomy + estrogen
   b. Orchietcomy + placebo
   c. Estrogen
   d. Only supportive measures.
6. *Late 60s:* Del Regatto,[6] as well as Bagshaw,[7] reported on the role of high energy rays in the therapy of cancer of the prostate. Further reports did follow. All reported radioresponsiveness of cancer of the prostate to curative doses.
7. *1970s:* Hilaris & Whitmore[8] reported on $I^{125}$ seed implantation to the prostate, together with pelvic node dissection.

The aim of this study is to review the experience of the University of Missouri Medical Center in carcinoma of the prostate and correlate this with the general trend in therapy pattern.

### 1955-1976

During this period, 576 patients were referred to the University of Missouri Medical Center. Of these, 245 were staged. The staging system used was as follows:

Stage 1 (or A): Carcinoma incidentally found in prostatectomy done for benign hypertrophy of the prostate.
Stage 2 (or B): Tumor confined to the gland, felt by the palpating finger as smooth nodule.
Stage 3 (or C): Tumor extending outside the capsule of the gland.
Stage 4 (or D): Metastatic carcinoma.

The number of cases and survival in various stages is shown in Table 1. The number of cases in Stages 2 and 3 was small, which is why they were included together.

The status of cancer during subsequent follow-up was known in 293 patients. Thus, 253 (86%) had proven cancer (245 dead and eight alive), while 40 (14%) were known to be free of cancer (11 dead and 29 alive).

The mean survival in the whole group from the time of our diagnosis was 27 months. However, the

TABLE 1

NUMBER OF CASES AND SURVIVAL BY STAGE IN 245 PATIENTS

| | *No. of Cases* | *Survival by Months* | *3 Yr. Sur. %* | *5 Yr. Sur. %* |
|---|---|---|---|---|
| Stage 1 ........ | 93 | 45 | 56 | 29 |
| Stages 2 & 3 .... | 40 | 38.7 | 40 | 27 |
| Stage 4 ....... | 112 | 24 | 17 | 7 |

TABLE 2

MEAN SURVIVAL IN MONTHS IN CANCER OF PROSTATE

| | *Proven Cancer* | *No Cancer* |
|---|---|---|
| Dead .................. | 22 | 36 |
| Alive .................. | 40 | 56 |

TABLE 3

AGE DISTRIBUTION IN 67 PATIENTS REFERRED FOR RADIOTHERAPY

| *Age* | *No. of Patients* | *% Age* |
|---|---|---|
| 40s .................... | 3 | 4 |
| 50s .................... | 9 | 13 |
| 60s .................... | 30 | 44 |
| 70s .................... | 14 | 20 |
| 80s .................... | 11 | 16 |

mean survival amongst those with or without cancer is shown in Table 2.

Referral of cases of carcinoma of the prostate for radical radiotherapy started practically only in the 1970s. That is why review of cases referred to radiotherapy was done from 1970 onward.

### 1970-1976

In this period, 67 patients were referred to Radiation Oncology. The average age was 67 years, with distribution shown in Table 3.

All radiotherapy was external. It was given with curative or palliative intent. We considered that radiotherapy had a curative intent if the total dose was 6,000 rads or more; otherwise, it was palliative. Curative radiotherapy was given to 24 (36%) of the patients. Of these, 16 (66%) were known to be alive, four (16%) were known to be dead, while no follow-up was available in four (16.6%) cases.

Palliative radiotherapy was given to 43 (64%) of the patients. The sites which needed palliation were the prostate (in 23 patients), bone metastasis (16 patients), and breasts to prevent gynecomastia due to endocrine management (ten patients), while in one patient it was given to supraclavicular metastasis. Urinary obstruction was a major symptom in 19 patients referred for radiation therapy. Of six who had urinary obstruction and were treated for cure, five were alive and well, while one died.

Endocrine therapy was given to 37 patients referred to radiotherapy; thus, 22 had female hormone, three had orchiectomy and 12 had both orchiectomy and female hormone.

### 1977 to Present

We introduced in our hospital a protocol for carcinoma of the prostate, Stages B and C.

#### *The Protocol*

The protocol calls for the following:

a. Surgical exploration, pelvic node dissection and retropubic exposure of the prostate. Frozen section histological examination of the nodes is done.

b. Radioactive iodine implantation. For this purpose, preoperative assessment of the size of the gland is done. The number of seeds is predetermined on the basis of the planned dose. Each seed is usually about 0.5 m Curie in strength.

c. External radiotherapy is given after complete wound healing. This means an interval of the order of three to four weeks. A moderate dose is given to the pelvis.

### Discussion

The birth of curative radiotherapy for carcinoma of the prostate was in the late 60s, when supervoltage was used, and in the early 70s, when brachytherapy with $I^{125}$ seeds was applied. The use of colloidal radioactive gold in the early 50s by Flocks was not widely used because of inhomogenous-dose distribution and the problem of exposure dose to personnel. The pattern of referral to our Radiation Oncology Section reflects this pattern of evolution of therapy of the prostate. Radical irradiation of the prostatic cancer is preferred to surgical ablation because more cases may lend themselves to nonsurgical procedure and, also, to avoid or minimize the impotence that follows prostatectomy.

The age distribution in our series was almost identical to Bagshaw's[7] series of 73 and Turner's[9] series of 229 patients.

The relief of urinary obstruction due to carcinoma of the prostate to ionizing irradiation was quite impressive. This further confirms the radioresponsiveness of this cancer.

The rationale of our protocol is to deliver total pelvic irradiation to a moderate dose, but to boost the dose to the primary tumor in the prostate to a higher dose. The true pelvis is irradiated for possible subclinical disease which can be eradicated by a moderate dose. Adenocarcinoma of the prostate, on the other hand, needs a high radiation dose. If only external radiotherapy is used, about 7,000 rads in seven weeks is needed. The disadvantage of a radical course of external radiotherapy is the possible side effects of high dose of radiation of normal tissues in the pelvis of an elderly man, who could be of the age of about 80 years. The disadvantage of radical irradiation from $I^{125}$ implant alone is the omission of total pelvic irradiation to an effective dose. In this protocol, the two disadvantages are avoided.

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# President's Message

My final report to MSMA members through the President's Page in Missouri Medicine is intended to be both a "thank you" to the many individuals who gave freely of their time to assist me during the year and a "challenge" to all physicians to work together in the future.

Being President of the MSMA may appear to be an honorary status conveyed merely as a symbol of leadership for Missouri physicians. If you feel that the position is not demanding, ask a Past-President. I certainly am not complaining for I enjoyed the opportunity to represent my colleagues the past year in countless endeavors aimed at insuring physicians the right to practice medicine for the betterment of their patients.

**Howard J. McAlhany, M.D.**

No individual can accomplish all he sets out to do in a year at the helm of our great Association. But, with the help of Commission and Committee members, Officers and Councilors, Staff and the many involved MSMA members, I feel we have made some great steps forward. Briefly, I would list the major achievements of my tenure as the following:

1. MOMEDICO—This is OUR insurance company which will provide professional liability protection for OUR members at the lowest possible cost. The occurrence-type coverage offered by a stock company should prove most attractive and I am hopeful the membership will support this innovative plan.
2. "Action Plan"—This three-edged counter-attack on those outside forces which would like to "run medicine" is still in its infancy but gaining quickly. Through this Plan, we are establishing a more effective voice with our Legislators, letting third-parties know we will stand up for the rights of physicians and protecting the relationships between physicians, patients and hospitals through, among other things, reviewing medical costs in relation to medical care.
3. Public Relations—Very soon you will receive the results of a public opinion survey designed to inform us on how the public feels about physicians and medical care. It will include suggestions on how to better reach the public with medicine's message and how to carry a positive image to our fellow physicians, the public and politicians. It sounds promising.

It has been an exciting year for me. Again, I thank the MSMA membership for allowing me the opportunity to serve.

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# MSMA Auxiliary

## AUXILIARIES AND AUXILIARY

I belong to two hospital auxiliaries, although I admit that I am a dues-paying member only at this time. The reason I mention this is that as I have worked in the MSMA Auxiliary, I have often heard . . . "Oh, I don't want to join the medical auxiliary. After all, I work in the hospital auxiliary." There continues to be such a misunderstanding of the two organizations that I feel some clarification is in order.

**Mrs. W. Jack Stelmach**
**President**

First, both hospital and medical society auxiliaries are needed. The basic difference between the two, however, is that each hospital auxiliary benefits only that one institution while the medical society auxiliary benefits the medical *profession.* In the case of my hospital auxiliary memberships, the hospitals are owned and operated by different churches and their auxiliaries include a large number of both church and community members who are not related to physicians. Ideally, the physician's wife would be interested in the functions of both groups and arrange to be active in and support the auxiliary to her husband's medical society as well as contribute to her hospital auxiliary.

Physicians' spouses are in a position to initiate and carry out programs that help the community and, in this way, enhance and extend the image of the physician. While it is true that one energetic and enthusiastic person can do much, it also is true that it is easier when there is a group.

If one physician can form a county medical society, why can't one physician's spouse join the MSMA Auxiliary as a member-at-large or 25 spouses form a county auxiliary? Of course, they can if they will. Forming a county auxiliary would not mean that they will just get together to eat and play bridge. Instead, they will make plans and do something constructive, whether it be training in CPR, seeing that most children are immunized, training babysitters, helping teenagers in trouble or working to solve any of the myriad of community problems today.

The cost of membership is minimal—national dues, $7; state dues, $4; local county dues vary. Members-at-large pay only national and state dues.

Doctors, won't you be sure that there is an Auxiliary member in your household? If she or he wishes to join, please send the form below and we'll see that the contact is made.

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Mail to Missouri State Medical Association Auxiliary,
P.O. Box 1028, 113 Madison, Jefferson City, Mo. 65101.

# EDITORIAL

## A STATEMENT FROM DEAN CHARLES C. LOBECK

After two and one-half years as Dean of the School of Medicine at the University of Missouri-Columbia, I would like to present my assessment of the progress of our school.

Our medical school is on the threshold of an important era. We are aiming for the highest quality in education, patient care and research by evaluation of our present curriculum and student admission policies, our recruitment of the best qualified faculty and examination of our educational and scholarly efforts.

To achieve the quality we want to attain, we must look to innovative ways to fill the gaps in our curriculum—such as genetics, ethics and basic cell biology—and, thus, improve the quality of faculty and student thought. We must aggressively seek federal biomedical research dollars and funds from private support by using our scholarly *and* service capability and the reputation of the school. We must encourage the quality of the intellectual environment of our students by asking for more work at synthesis, expression and the use of language and less concern about their factual memory.

Yes, I can say we are in the midst of a great change and improvement. The University is under a firm intelligent hand; the attitudes of the state legislature and public towards us are changing for the better. We have cooperative relationships with the Veterans Hospital in Columbia and other divisions on campus that enhance our teaching programs. Our alumni are increasingly supportive and involved in school affairs. All these signs portend well for the future.

Dr. Lobeck

The importance of an institution is signified by the quality of the individuals of which it is comprised. I believe that academic thinking is the basis for clinical practice and that our graduates should serve as intellectual critics and leaders. To this end I view as one of my major responsibilities the continued development of quality in the school.

We welcome visits and comments from Missouri's practicing physicians, many of whom are graduates of this institution. We appreciate your interest and support.

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# MSMA Members Receive Physician's Recognition Award

One hundred and twenty-three MSMA members were recipients of the MSMA-AMA Physician's Recognition Award (PRA) during the period of Jan. 1-March 9, 1978.

The Award is a voluntary continuing medical education (CME) program designed to improve the physician's competence and recognize physicians who earn it by completing the educational requirements.

The PRA is based on a three-year cycle. In order to qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Following are names of the most recent award recipients:

Archibald M. C. Ahern, M.D., St. Louis
Karl L. Albaeck, M.D., Nixa
James J. Allain, M.D., North Kansas City
George D. Amromin, M.D., Columbia
Kenneth J. Arnold, M.D., St. Louis
Herbert E. Arst, M.D., Kansas City
Fernando V. Basantz, M.D., Kansas City
Robert L. Becker, M.D., St. Louis
William F. Benson, M.D., Kansas City
Sheldon E. Berenson, M.D., Kansas City
Roger Berlin, M.D., Kansas City
Paul T. Berry, M.D., Springfield
John L. Bircher, M.D., St. Louis
James G. Blythe, M.D., Creve Coeur
Steven R. Brenner, M.D., St. Louis
Alton D. Brookreson, M.D., Poplar Bluff
Menzie H. Brown, M.D., Kansas City
Edward D. Campbell, M.D., Cape Girardeau
Frederick C. Coller, M.D., Springfield
Thomas V. Craddock, M.D., St. Louis
Robert M. Crawford, M.D., Sullivan
Oblendo A. Cuento, M.D., Kirkwood
Edward W. Czebrinski, M.D., St. Louis
Dale E. Darnell, M.D., Kansas City
James W. Debnam, M.D., Chesterfield
Jonathan D. Dehner, M.D., St. Louis
Mark W. Devine, M.D., North Kansas City
Donald J. Dickler, M.D., St. Louis
William L. Drake, M.D., St. Louis
Alan H. Edelman, M.D., St. Louis
Gustave Eisemann, M.D., Kansas City
Calvin E. Engelmann, M.D., Kansas City
Roland P. Ernst, M.D., St. Louis
William E. Feist, M.D., Kansas City
David Feldman, M.D., St. Louis
Thomas B. Ferguson, M.D., St. Louis
Raymond B. Finch, M.D., Bolivar
Phillip B. Foreman, M.D., Hannibal
Donald E. Frein, M.D., Harrisonville
Bartley R. Frueh, M.D., Columbia
Charles P. Gauthier, M.D., Kansas City
Lawrence E. Giffen, D.O., Jefferson City
Richard W. Gunn, M.D., Kansas City
Hugh A. Hanna, M.D., Warrensburg
Godofredo M. Herzog, M.D., Florissant
Blaine Z. Hibbard, M.D., Kansas City
Charles K. Hofling, M.D., St. Louis
Sumner Holtz, M.D., St. Louis
Jun Shen Huang, M.D., Kennett
Lucien W. Ide, M.D., St. Joseph
George A. Johnson, M.D., Springfield
Karl L. Keffler, M.D., St. Louis
Forrest H. Kendall, M.D., Kansas City
Robert E. Koch, M.D., Clayton
Carl R. Kruse, M.D., Palmyra
Richard A. Landy, M.D., St. Louis
John J. Lang, M.D., St. Louis
Eric W. Lauter, M.D., Poplar Bluff
Henry A. Lee, M.D., Kansas City
Richard L. Lehner, M.D., Kansas City
Harold C. Lentz, M.D., Neosho
John C. Listerman, M.D., Springfield
Lyle D. Litton, M.D., Springfield
Harold R. Lyddon, M.D., Kansas City
Angus Macleod, M.D., St. Louis
Robert L. Magee, M.D., El Dorado Springs
Lyell M. Magruder, M.D., Nevada
Sarfraz A. Malik, M.D., St. Louis
Clarence A. Martin, M.D., Joplin
Edwin J. Masters, M.D., Sikeston
M. Donald McFarland, M.D., Kansas City
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William B. Mill, Jr., M.D., St. Louis
Armando H. Moreano, M.D., Kansas City
Joseph A. Mueller, M.D., St. Louis
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George C. Olive, M.D., Neosho
Jere O. Osborne, M.D., Kansas City
Robert H. Owens, M.D., Kansas City
William D. Owens, M.D., St. Louis

*(Continued on next page)*

## *Physician's Recognition Award*

*(Continued from page 187)*

Mauro A. Paez, M.D., Creve Coeur
Russell H. Palmer, M.D., Palmyra
John E. Pawsat, M.D., Kansas City
Horace M. Perry, M.D., Town and Country
Varkey Philip, M.D., Kirkwood
Chintana S. Phipatanakul, M.D., Florissant
William A. Pilchard, M.D., Kansas City
Arthur A. Porporis, M.D., St. Louis
Stephen H. Radinsky, M.D., Creve Coeur
Vinai Raksakulthai, M.D., Fredericktown
Diane Rankin, M.D., St. Louis
Abbiah N. Reddy, M.D., Poplar Bluff
Carl M. Regier, M.D., Branson
Federico B. Reiter, M.D., St. Louis
John R. Rigdon, M.D., Kennett
Arthur W. Robinson, M.D., Kansas City
Rudy Ruhling, M.D., St. Louis
Manuel W. Runez, M.D., Houston
Antonio B. Santillano, M.D., St. Louis
Gerhard W. Schottman, M.D., Kansas City
Horace W. Scott, M.D., St. Louis
David G. Sherman, M.D., Columbia
Michael R. Soper, M.D., Jackson
Gerald E. Staab, M.D., Kansas City
Christiam H. Stehr, M.D., Springfield
Dan T. Sullivan, M.D., Springfield
Bennie N. Till, M.D., Poplar Bluff
Francis O. Trotter, M.D., St. Louis
George A. Ulett, M.D., St. Louis
Emiliano C. Umali, M.D., Washington
Pio M. Vilar, M.D., Chesterfield
Robert P. Wankum, M.D., Jefferson City
Clark C. Watts, M.D., Columbia
Edward C. Weiford, M.D., Kansas City
Henry C. Willumsen, M.D., St. Joseph
Esther B. Winkelman, M.D., Kansas City
James B. Wolcott, M.D., Washington
Jerry B. Wurster, M.D., Kansas City
Vincent E. Ziegler, M.D., St. Louis

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# New Members

**Mohammed Al-Aly,** M.D., 6651 Chippewa, St. Louis 63109, has become a member of St. Louis County Medical Society. Dr. Al-Aly is a native of Homs, Syria, received his preliminary education at Damascus University and his M.D. degree at Damascus University in 1972. He specializes in general radiology and nuclear medicine.

**J. Bradley Arthaud,** M.D., 807 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Arthaud received his M.D. degree at the University of Missouri in 1965. He specializes in pathology.

**Daniel K. Barnett,** M.D., 12921 Grandview Rd., Grandview 64030, has become a member of Jackson County Medical Society. Dr. Barnett is a native of Missouri, received his preliminary education at the University of Missouri and his M.D. degree at St. Louis University in 1974. He specializes in internal medicine.

**Charles J. Brook,** M.D., 400 Highlands Professional Tower, 6724 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Brook is a native of Baltimore, Md., received his preliminary education at Carleton College and his M.D. degree at the University of Chicago in 1969. He specializes in pulmonary diseases.

**Joseph Carron,** M.D., Perry Plaza Medical Center, Perryville 63775, has become a member of Perry-Ste. Genevieve County Medical Society. Dr. Carron is a native of Perryville, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1958. He specializes in family practice.

**Thomas Newman Davis, III,** M.D., State Hospital, Farmington 63640, has become a member of Mineral Area County Medical Society. Dr. Davis is a native of Lynchburg, Va., received his preliminary education at the University of Virginia and his M.D. degree at the University of Virginia in 1944. He specializes in psychiatry.

**William E. Dorzab,** M.D., Menorah Medical Center, 4949 Rockhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Dorzab is a native of California, Mo., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1971. He specializes in pathology.

**Norman Steven Druck,** M.D., 4949 Forest Park, St. Louis 63108, has become a member of St. Louis County Medical Society. Dr. Druck is a native of San Francisco, Calif., received his preliminary education at Washington University and his M.D. degree at the University of Illinois in 1970. He specializes in otolaryngology.

**Helmut Hartmann,** M.D., Frohna 63748, has become a member of Cape Girardeau County Medical Society. Dr. Hartmann is a native of West Africa. He received his M.D. degree at the Universitat Heidelberg in 1941. He specializes in general practice.

**Barrett Kent Holder,** M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Holder is a native of Murphysboro, Ill., received his preliminary education at Southern Illinois University and his M.D. at Washington University in 1965. He specializes in orthopedic surgery.

**Richard A. Huseman,** M.D., 240 Professional Bldg. N., 2700 Hospital Dr., Kansas City 64116, has become a member of Jackson County Medical Society. Dr. Huseman is a native of Gary, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1972. He specializes in internal medicine and nephrology.

**Bruce P. Hutson,** M.D., 508 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Hutson is a native of Omaha, Neb., received his preliminary education at Doane College and his M.D. degree at the University of Nebraska in 1964. He specializes in emergency medicine.

**Robert Ronald Jones,** M.D., 900 S. Adams, Nevada 64772, has become a member of West Central County Medical Society. Dr. Jones is a native of Nevada, Mo., received his preliminary education at John Brown University and his M.D. degree at Baylor College in 1971. He specializes in pediatrics.

**John D. Kenney, III,** M.D., 751 East 63rd Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Kenney is a native of Camden, N.J., received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1970. Dr. Kenney specializes in anesthesiology.

**Cecile S. Khoury**, M.D., 10204 Howe Lane, Leawood, Kan. 66206, has become a member of Jackson County Medical Society. Dr. Khoury is a native of Alexandria, Egypt, received her preliminary education at Cairo University and her M.D. degree at Cairo University in 1963. She specializes in anesthesiology.

**Subodh K. Mohindra**, M.D., 3015 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis County Medical Society. Dr. Mohindra is a native of New Delhi, India, received his preliminary education at Hans Raj College and his M.D. degree at Maulana Azad Medical College in 1970. He specializes in internal medicine and cardiology.

**David S. Olander**, M.D., 621 S. New Ballas Rd., Creve Coeur 63141, has become a member of St. Louis County Medical Society. Dr. Olander is a native of Kewanee, Ill., received his preliminary education at Washington University and his M.D. degree at Washington University in 1974. He specializes in pediatrics and cardiology.

**James E. Palen**, M.D., 15 Doctors' Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Palen is a native of Chicago, Ill., received his preliminary education at Southeast Missouri State University and his M.D. degree at the University of Missouri in 1970. He specializes in family practice.

**Jerold Matthew Rau**, M.D., Plaza Medical Building, Suite 235, 315 Nichols Rd., Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Rau is a native of Wichita, Kan., received his preliminary education at the University of Wichita and his M.D. degree at the University of Kansas in 1965. He specializes in dermatology.

**Paul G. Ruff**, M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Ruff is a native of Spartanburg, S. C., received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri in 1970. He specializes in thoracic and cardiovascular surgery.

**Dahlia S. Saldana**, M.D., 9103 E. 40 Highway, Independence 64055, has become a member of Jackson County Medical Society. Dr. Saldana is a native of Laoag City, Philippines, received her preliminary education at the University of the Philippines and her M.D. degree at the University of the Philippines in 1972. She specializes in internal medicine.

**Robert G. Schwegler**, M.D., 128 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Schwegler is a native of Kansas City, received his preliminary education at DePauw University and his M.D. degree at the University of Kansas in 1971. He specializes in diagnostic radiology.

**Dana Lyman Solem**, M.D., 430 South Ave., Springfield 65805, has become a member of Greene County Medical Society. Dr. Solem is a native of Yankton, S. D., received his preliminary education at the University of North Dakota and his M.D. degree at the University of Texas in 1974. He specializes in psychiatry.

**Robert M. Spurgat**, M.D., 510 Francis, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Spurgat is a native of Ft. Wayne, Ind., received his preliminary education at the University of Indiana and his M.D. degree at Upstate Medical Center in 1964. He specializes in internal medicine and pulmonary diseases.

**Terry I. Waldman**, M.D., 751 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Waldman is a native of Louisville, Ky., received his preliminary education at the University of Louisville and his M.D. degree at the University of Louisville in 1970. He specializes in anesthesiology.

**Gary Walker**, M.D., 117 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Walker is a native of Kansas City, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1971. He specializes in obstetrics and gynecology.

**Russell D. White**, M.D., Doctors' Bldg., 500-A Porter, Aurora 65605, has become a member of Ozarks County Medical Society. Dr. White is a native of Maryville, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1974. He specializes in family medicine.

**James B. Wolfe, Jr.**, M.D., Suite 410, Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Wolfe is a native of Hampton, Ia., received his preliminary education at Drake University and his M.D. degree at the University of Iowa in 1970. He specializes in otolaryngology.

# AMA Sponsors Rural Health Conference

Practical approaches to the delivery of health care ervices to the 54,000,000 Americans living in rural areas was the focus of the 31st National Conference on Rural Health sponsored by the American Medical Association on April 5-7 in Denver, Colo.

With the theme, "Building Local Alliances for Rural Health," the Conference was unique in the variety of subjects covered. More than 50 topics were addressed including health manpower, financing, access to care and rural health facilities. Specific programs were directed at grantsmanship, rural medical technology, health planning, emergency medical services, upgrading medical care in jails and recruiting physicians to rural areas. In addition, the Conference featured presentation of 0 models of health care delivery from across the United States.

For the first time in the 30-year history of the Conference, a series of clinical continuing education courses for physicians in rural practices were presented. Developed in cooperation with the American Academy of Family Physicians, the courses covered such topics as practical perinatal problems, respiratory diseases in agricultural workers, rural environmental toxicology, plastic wound closure techniques for the primary care physician and practice management.

In addition to the socioeconomic issues of rural health care delivery, seminars were conducted in the physiological changes with age, women's health care and dental health.

A special feature of the Conference was a two-hour, closed circuit television program which was beamed via satellite from Denver to medical schools in surrounding states, a network of Veteran's Administration Hospitals and to the National Institutes of Health in Bethesda, Md.

# Physician's Scientific-Sports Event Set for April 30-May 5

Physicians and their spouses from all sections of the United States will convene at the Canyon Hotel and Country Club in Palm Springs, Calif. on April 30-May 5 to participate in the 11th annual meeting of the Desert Medical Classic, a unique combination of scientific exploration and golf and tennis competition.

The American Medical Golf Association and the American Medical Tennis Association are cosponsors of the Desert Medical Classic which will feature a series of scientific lectures entitled "A Symposium on Sexual Dysfunction, Drug Addiction, Alcoholism, Senescence and Litigation; The Challenging Personal Problems Affecting 20th Century Physicians."

Dr. R. W. Latham of Kansas City, a member of the Board of Directors, said that 60 Missouri physicians are now members of the 3,500-member American Medical Tennis Association.

The scientific program which features a distinguished panel of speakers will earn eight hours of CME-Category I credit for physicians who complete the course successfully.

Registrants in the golf event will compete in a four-day 72-hole, medal-play utilizing four of the most famous desert golf courses in the world.

The tennis tournament will be structured to attract women and men of all skill levels and age categories.

Physicians who are interested in attending the meeting may obtain registration information by writing to DMC, P.O. Box 183, Alton, Ill. 62002 or calling (618) 462-6841.

# *County Society News*

*(Continued from page 164)*

D. E. Eggleston and D. S. Shin, Macon; D. D. Stuart, Brunswick; H. T. Lin, C. H. Lin, C. C. Cohrs, W. D. Chute, L. E. Huber, E. S. Lin, R. L. Bautista, Ruel Miciano, G. R. Hudson and R. V. Tompson, Moberly; P. V. Dreyer, Huntsville; and F. A. Barnett, Paris. In addition to Doctor Bauer, guests were Mr. Gary Sparks of Columbia, sales representative of Boehringer Ingelheim Ltd., and Dr. Lepold LaChance of Centralia.

G. R. Hudson, M.D., *Secretary*

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# In Memoriam

**Herbert B. Taylor,** M.D., 1325 S. Grand, St. Louis 63104; a graduate of George Washington University, 1954; member of St. Louis Medical Society; age 49; died Nov. 25, 1977.

**Otto Frank Bauer,** M.D., 3214 Princeton, Granite City, Ill. 62040; a graduate of Medizinische Fakultat der Rheinischen Friedrich-Wilhelms Universitat, 1941; member of St. Louis Medical Society; age 62; died Feb. 23, 1978.

**Clarence J. Vollmar,** M.D., 9976 Willow Pt. Dr. Sun City, Ariz. 85351; a graduate of St. Louis University, 1929; member of St. Louis County Medical Society; age 81; died March 10, 1978.

**Landon H. Gurnee,** M.D., 1431 Southwest Blvd. Jefferson City 65101; a graduate of the University of Tennessee, 1940; member of Cole County Medical Society; age 64; died March 20, 1978.

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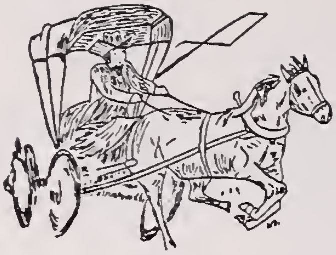

# Missouri Medicine in Review

LEO H. POLLOCK, M.D.

## FORTY YEARS AGO

The 81st Annual Session of the Missouri State Medical Association will convene in Jefferson City on May 2-4, 1938. All sessions will be held in the House Chamber of the Capitol Building with the exception of the dinner and luncheon meetings.

Guest speakers will be Dr. J. H. J. Upham of Columbus, Ohio, President of the American Medical Association and dean and professor of Medicine at Ohio State University School of Medicine, and Dr. George M. Curtis, professor of research surgery at Ohio State University School of Medicine.

The Committee on Entertainment of the Cole County Medical Society has extensive plans for the entertainment of members attending the Session in Jefferson City. Golf will be under the direction of Dr. David Enloe. The Country Club will be open to all members who can make arrangements for teeing off. The skeet tournament will be under the direction of Dr. J. A. Ossman and will be held at the Gun Club at 4 PM daily.

The Lincoln County Medical Society has elected the following officers: President, Dr. E. A. Hicks, Troy; Vice-President, Dr. J. C. Woeger, Whiteside; Secretary-Treasurer, Dr. H. S. Harris, Troy; Delegate, Dr. Joseph C. Creech, Troy; and Alternate Delegate, Doctor Harris.

## TWENTY-FIVE YEARS AGO

The Mineral Area County Medical Society met at State Hospital No. 4 in Farmington on December 18. Officers of the Society elected for 1953 are Drs. Marvin Grossman, Fredericktown, President; C. S. Slaughter, Fredericktown, Vice-President; and Byron Taylor, Flat River, Secretary-Treasurer.

The Pettis County Medical Society met at Bothwell Memorial Hospital on December 1. The main order of business was the election of officers for 1953. They are Dr. P. V. Siegel, Smithtown, President; Dr. Karl Gonser, Sedalia, Vice-President; Dr. Carl Siegel, Sedalia, Secretary; and Dr. C. H. Brady, Sedalia, Treasurer. Drs. A. L. Walter and J. W. Boger of Sedalia were elected to the Executive Committee. Other members of this committee are Dr. John Lamy, Immediate Past-President; Dr. P. V. Siegel, President; and Dr. Carl Siegel, Secretary.

In step with the busy schedule of today's doctor, Eli Lilly and Company has conceived an entirely new format for its house publication, *The Physician's Bulletin*. Starting in January, 1953, the New "PB" is designed to give brief, concise information in a handy form to the 150,000 doctors who receive it. It is edited by S. O. Waife, M.D. with the assistance of other physicians on the Lilly staff.

A dinner meeting of the Phelps-Crawford-Dent-Pulaski County Medical Society was held in conjunction with a postgraduate session of the Missouri Academy of General Practice in the Pine Room of the Greyhound Bus Station in Rolla.

## TEN YEARS AGO

Dr. Francis X. Meier is the new president of the medical staff of St. Mary's Hospital in Jefferson City. He succeeds Dr. Byron E. Watts. Dr. Robert Tanner was elected to serve as president-elect and Dr. Fred P. Handler was elected secretary-treasurer. Dr. Watts, Dr. James T. Leslie and Dr. Charles S. Exon also will serve on the executive committee.

A portrait of the late Dr. Ralph Kinsella, Sr., who was professor and director emeritus of the Department of Internal Medicine at St. Louis University School of Medicine, has been presented to the school. Mrs. E. A. (Ruby) Quasabarth, a St. Louis artist, created the painting which was commissioned by the staff that Doctor Kinsella headed for 29 years. Doctor Kinsella died in September, 1966.

Dr. Cesar A. Gomez, Creve Coeur, has been elected president and chief of staff of Missouri Baptist Hospital in St. Louis. Serving with Doctor Gomez will be Dr. William H. Paris, who was elected vice-president and associate chief of staff; Dr. Rober E. Thompson, who was named secretary; and Dr William B. Hutchinson who was reelected treasurer

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**Adverse Reactions:** All major reactions to sulfonamides and nethoprim are included, even if not reported with Bactrim. *od dyscrasias:* Agranulocytosis, aplastic anemia, megaloblas- anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, oprothrombinemia and methemoglobinemia. *Allergic reac- ns:* Erythema multiforme, Stevens-Johnson syndrome, neralized skin eruptions, epidermal necrolysis, urticaria, serum kness, pruritus, exfoliative dermatitis, anaphylactoid reactions, riorbital edema, conjunctival and scleral injection, photosensiti- ion, arthralgia and allergic myocarditis. *Gastrointestinal reac- ns:* Glossitis, stomatitis, nausea, emesis, abdominal pains, patitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

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Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

*Children two months of age or older*

| Weight | | Dose—every 12 hours | |
|---|---|---|---|
| lbs | kgs | Teaspoonfuls | Tablets |
| 20 | 9 | 1 teasp. (5 ml) | ½ tablet |
| 40 | 18 | 2 teasp. (10 ml) | 1 tablet |
| 60 | 27 | 3 teasp. (15 ml) | 1½ tablets |
| 80 | 36 | 4 teasp. (20 ml) | 2 tablets or 1 DS tablet |

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| Creatinine Clearance (ml/min) | Recommended Dosage Regimen |
|---|---|
| Above 30 | Usual standard regimen |
| 15-30 | ½ the usual regimen |
| Below 15 | Use not recommended |

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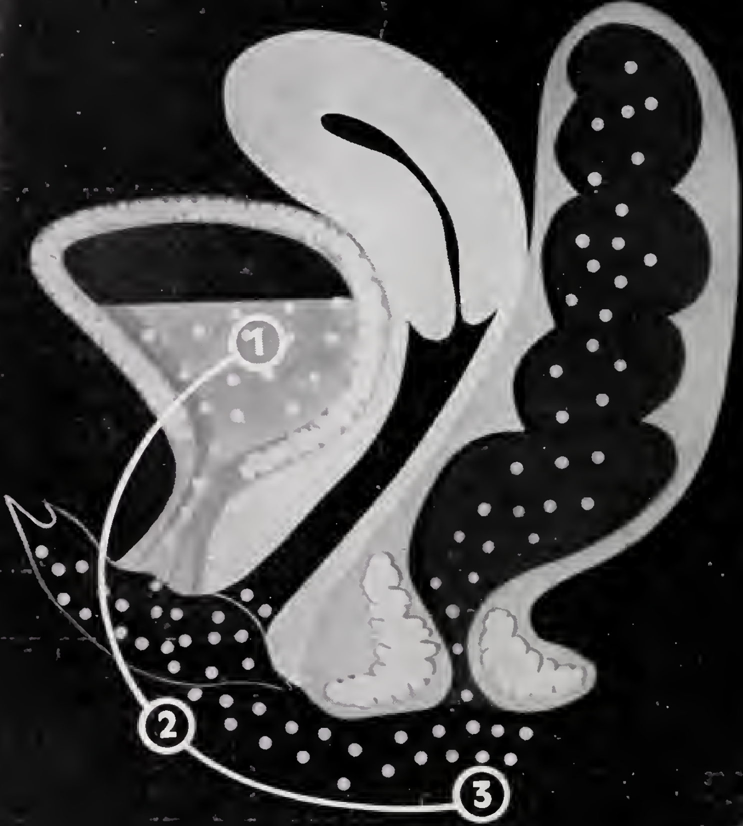

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**MAY, 1978**

VOLUME 75, NUMBER 5

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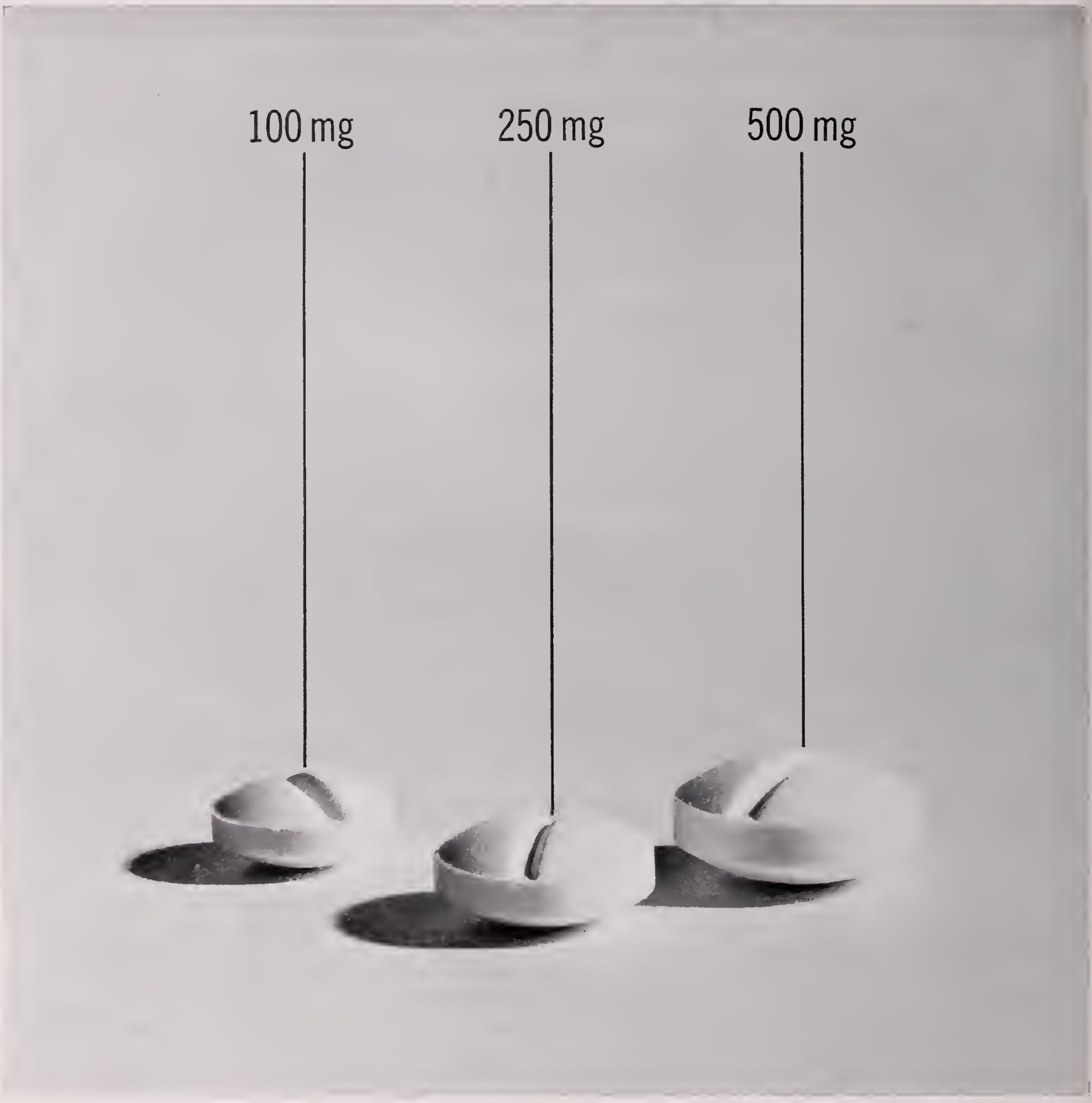
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# Dr. Wilfred E. Wooldridge Named Editor of *Missouri Medicine*

Dr. Wilfred E. Wooldridge, Springfield, was appointed editor of MISSOURI MEDICINE by the Executive Council of the Missouri State Medical Association on February 4 and has assumed this position with this issue of the Journal.

He succeeds Dr. Joseph V. Finnegan, St. Louis, who has served as Editor since 1962.

Dr. Wooldridge has been associated with MISSOURI MEDICINE as a member of the Editorial Board since the latter's inception in 1956. Since 1969, he has served on both the Editorial Board and the Publications Committee.

A contributor of medical articles and editorials to MISSOURI MEDICINE throughout the years, he is the author of 42 medical articles and two textbook chapters. He was editor of the Greene County Medical Society *Bulletin* for 15 years and is a professional writer and consultant for the Smith Kline and French *Consultant* magazine, *Medical Economics* and *Resident Physician.*

Dr. Wooldridge attended Drury College in Springfield and received his M.D. degree in 1943 at Washington University in St. Louis, where he served his internship. A trainee and assistant resident in dermatology at the Barnard Free Skin and Cancer Hospital in St. Louis, he completed his residency in dermatology there in 1949.

Dr. Wooldridge

He was an Instructor in Dermatology, Department of Medicine at Washington University School of Medicine from 1950-1957 and a Visiting Lecturer in Dermatology in the Department of Medicine at the University of Oklahoma Medical School from 1960 to 1972.

He has been teaching as a Clinical Professor of Medicine (Dermatology) in the Department of Medicine at the University of Missouri-Columbia since 1969.

Dr. Wooldridge is well known for his crisp writing style and his thought-provoking editorials which will appear frequently in future issues of MISSOURI MEDICINE.

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# Dr. Andrew McCanse Elected MSMA President-Elect

Dr. McCanse

Andrew McCanse, M.D., Kansas City, was elected President-Elect of the Missouri State Medical Association during the 120th Annual Session at Crown Center Hotel in Kansas City on April 13-16.

Dr. John N. Martin, St. Joseph, was installed as President of the Association at the session.

A member of Jackson County Medical Society, Dr. McCanse served as a Delegate to the MSMA from 1966 to 1974. In 1974, he was elected Councilor of the Seventh District. He served as Vice-Chairman of the MSMA Council in 1976-1977 and as Chairman the past year.

A professor at the University of Missouri-Kansas City School of Medicine, Dr. McCanse's other academic appointments have included Clinical Instructor, Chairman of the Department of Surgery, Assistant Dean and Chairman of the Council on Selection and Associate Dean for Student Affairs.

He is a member of the American Medical Association, Kansas City Surgical Society, Kansas City Southwest Clinical Society, Missouri Chapter of the American College of Surgeons among other organizations. He was elected secretary-treasurer of the Missouri State Surgical Society for 1977-1978. Among his many affiliations and service assignments with community, state and professional organizations were the presidencies of the Jackson County Unit and Missouri Chapter, American Cancer Society and the Association of Missouri Tumor Registry Directors.

Dr. McCanse attended the University of Missouri where he graduated with a M.A. (Anatomy) degree in 1952. He received his M.D. degree at Washington University in St. Louis in 1954. He served his internship and completed his residency in general surgery at The Jewish Hospital in St. Louis in 1961.

A Captain in the U. S. Army Medical Corps for two years, he also served as U. S. Army Medical Company Commander, 24th Infantry Division, for six months during his tour of duty in Korea in 1955 and 1956.

Dr. McCanse is in the private practice of surgery in Kansas City. He and Mrs. McCanse are the parents of three daughters: Cynthia, 18; India, 17; and Andrea, 14.

# Health Services Industry in Missouri to be Surveyed

The Missouri Division of Employment Security has announced that it will conduct a mail survey of the health services industry early this summer to help answer questions about the future job market for physicians, registered nurses, therapists, radiological technicians, clinical laboratory technicians and others.

Staffing patterns or estimates of the occupational make-up of the industry will be developed from the information obtained. The information also is used to review projections of occupational employment demands.

The Division emphasizes that the cooperation of those surveyed will be needed to produce realistic employment estimates from the survey. Every employer who completes and returns a questionnaire will help improve the quality of the estimates and insure that the data are useable.

Copies of the completed staffing pattern survey will be available to all who participate. The data are used for statistical purposes only and no individual firm is identified in any resulting publication.

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Each capsule contains 50 mg. of Dyrenium® (triamterene, SK&F Co.) and 25 mg. of hydrochlorothiazide.

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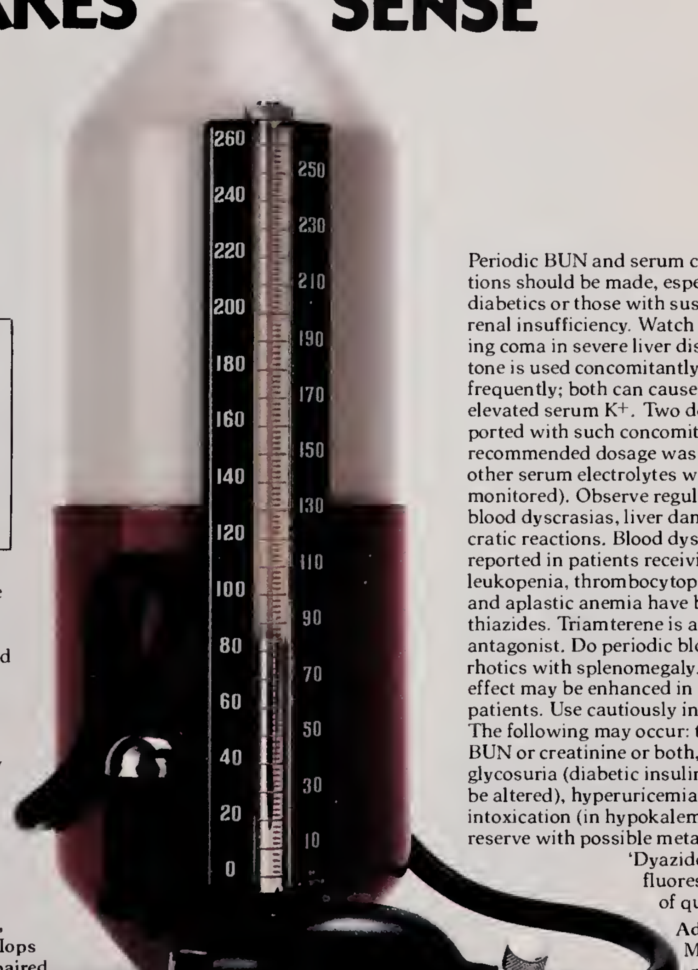

**Before prescribing, see complete prescribing information in SK&F Co. literature or PDR. A brief summary follows:**

* **Warning**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

* **Indications:** When the combination represents the dosage determined by titration: Adjunctive therapy in edema associated with congestive heart failure, hepatic cirrhosis, the nephrotic syndrome. Corticosteroid and estrogen-induced edema, idiopathic edema; hypertension, when the potassium sparing action of triamterene is warranted. (See Box Warning.) Routine use of diuretics in healthy pregnant women is inappropriate; they are indicated in pregnancy only when edema is due to pathological causes.

**Contraindications:** Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum $K^+$ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict $K^+$ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available.

**Precautions:** Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum $K^+$ frequently; both can cause $K^+$ retention and elevated serum $K^+$. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis.

'Dyazide' interferes with fluorescent measurement of quinidine.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone.

Supplied: Bottles of 100 and 1000 capsules; Single Unit Packages of 100 (intended for institutional use only).

**FOR LONG-TERM CONTROL OF HYPERTENSION.* SERUM $K^+$ AND BUN SHOULD BE CHECKED PERIODICALLY. (SEE WARNINGS SECTION.)**

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# Kaon® Elixir
(potassium gluconate)

# Kaon® Tabs
(potassium gluconate)

BRIEF SUMMARY
**Kaon Tablets/Kaon Elixir**

**KAON® (potassium gluconate) TABLETS**

**Description:** Each sugar-coated tablet supplies 5 mEq. of elemental potassium (as potassium gluconate 1.17 Gm.). Kaon Tablets are sugar coated, not enteric coated, which favors dissolution in the stomach and absorption before reaching the small intestine where the lesions with enteric potassium chloride have occurred. The sugar coating merely adds to palatability and ease of swallowing, not to delay absorption as does the enteric coating.
**Indications:** Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
**Contraindications:** Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.
**Warning:** There have been several reports, published and unpublished, concerning nonspecific small-bowel lesions consisting of stenosis, with or without ulceration, associated with the administration of enteric-coated potassium tablets alone or when they are used with nonenteric-coated thiazides or certain other oral diuretics. These small-bowel lesions have caused obstruction, hemorrhage and perforation. Surgery was frequently required and deaths have occurred. Available information tends to implicate enteric-coated potassium salts, although lesions of this type also occur spontaneously. Therefore, coated potassium-containing formulations should be administered only when indicated and should be discontinued immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Coated potassium tablets should be used only when adequate dietary supplementation is not practical.
**Precautions:** In response to a rise in the concentration of body potassium, renal excretion of the ion is increased. With normal kidney function, it is difficult, therefore, to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentra-

1954
1978
Time is the test of all things

tions of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a salt-free diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation. In these circumstances, Kaon (potassium gluconate) should be supplemented with chloride. Ammonium chloride is an excellent source of chloride ion (18.7 mEq. per Gram), but it should not be used in patients with hepatic cirrhosis where ammonium salts are contraindicated. Other sources for chloride are sodium chloride and Diluted Hydrochloric Acid, U.S.P.

It should also be kept in mind that ammonium cycle cation exchange resin, sometimes used to treat hyperkalemia, should not be administered to patients with hepatic cirrhosis.

**Adverse Reactions:** Nausea, vomiting, diarrhea and abdominal discomfort have been reported. The symptoms and signs of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of QRS complex, changes of the S-T segment, tall peaked T waves, etc.

**Overdosage:** Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications." Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

**KAON® (potassium gluconate) ELIXIR**

**Description:** Each 15 ml. (tablespoonful) supplies 20 mEq. of elemental potassium (as potassium gluconate, 4.68 Gm.) with saccharin and aromatics. Alcohol 5%.

**Indications:** See Kaon Tablets.

**Precautions:** See Kaon Tablets.

In hypochloremic alkalosis, potassium replacement with potassium chloride (e.g., Kaochlor® 10% Liquid) may be more advantageous than with other potassium salts.

**Adverse Reactions:** See Kaon Tablets.

**Overdosage:** See Kaon Tablets.

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# MSMA NEWS ROUND-UP

May, 1978

## Legislative session comes to an end

As the 1978 Missouri General Assembly came to a close April 30, several new laws which affect physicians and their patients were adopted.

Well over 1,300 bills were introduced this Session and the MSMA followed, to varying degrees, more than 130 measures. By the end of the Session 169 bills were finally adopted and 11 of these will have an impact on medicine and health care.

The bills supported by the MSMA which passed the Legislature were SB 765, which allows the state to pay for autopsies (with parental consent) of infants who die before age one; SB 624, which further defines physician advertising under the Medical Practice Act; HB 884, which provides state loans to medical students who agree to practice in areas of need; and HB 1492, which allows medical technicians to remove donated eyes. Also, HB 933, which allows substitution of generic drugs, was amended to include safeguards sought by medicine.

One bill opposed by the MSMA was passed. HB 1691 calls for the establishment of a School of Optometry in St. Louis. The bill was amended to require 75% federal funding and placed strict requirements on other states who agree to send students to the school. Compacts with other states are needed before the school can be established.

Other bills of interest which passed were SB 505, which increases Medicaid payments for hospital outpatient services from $8 to 80% of cost; and SB 671, which provides Medicaid payment for podiatry services. Three bills generally supported by the Missouri Psychiatric Association were passed. SB 651 rewrites the commitment, custody and care regulations for Missouri's mentally ill, SB 652 provides for establishment of community mental health centers and SB 653 restructures the Division of Mental Health.

Obviously, more bills failed than passed during the Session. Those bills opposed by the MSMA which were not adopted included SB 518, which would have allowed optometrists to use topically-applied drugs; SB 699, which would have greatly expanded the practice of chiropractic; and HB 997, which would have legalized the use, sale and manufacture of laetrile in Missouri. Also, the Association opposed adoption of the dozen bills designed to license new areas of allied health personnel and none of the bills passed.

Two bills of wide interest also failed. The MSMA did not have a strong position on either as long as certain provisions were included. SB 507 would have established a "Certificate-of-Need" law in Missouri, now the only state without either a C-O-N law or SSA 1122 provision in effect. The bill excluded physician offices. SB 672, would have added a lay member to the Board of Healing Arts. The bill was amended to make the member "non-voting," but still was not adopted.

As in any Session, several bills which received the support of the MSMA also went down to defeat. SB 610 would have provided physicians with a hearing by Medicaid in cases of payment denial; HB 1020 would have included "brain death" as a method for determining death; HB 1044 would have provided state assistance in establishing more Family Practice Residencies in Missouri; and HB 1142 would have placed Medicaid on an "open formulary."

Additional information on the bills adopted by the Legislature will be available when the various state agencies issue regulations to implement the laws.

## Medicare list delayed

The Department of Health, Education and Welfare's list of physicians who received Medicare payments in 1977, scheduled to be available for public inspection on April 30, has been delayed. Corrections were still coming in from the carriers on May 1, and it may be two weeks before the five-foot stack of material is complete.

Opening of the list to the public may have become more complicated when a federal judge issued a temporary restraining order in April blocking the release of names of Florida physicians following a suit filed by the Florida Medical Association.

## *New law calls for new prescription forms*

Don't stock up on prescription forms!!!

By January 1, 1979, all Missouri physicians will be using new prescription forms for their written prescriptions. House Bill 933, recently passed by the Missouri General Assembly, will require two signature lines on each form. The new law is intended to encourage generic drug prescribing so that patients can save money.

When final regulations are drawn up by the state, the MSMA will publish a "recommended style" for your prescription forms so that they will comply with the new law.

HB 933 requires that physicians use a form with two signature lines appearing near the bottom of the form. Under the line on the right side the words "Dispense as Written" are required to appear. Under the line on the left side of the form the words "Substitution Permitted" are required. If a physician signs on the left side, the pharmacist will be permitted to substitute a generic drug "with the same active chemical ingredients of the same strength, quantity and dosage form" for a brand name drug.

**Continued on Page 4**

*New MSMA Council Chairman, Dr. Richard V. Bradley, St. Louis (left) confers with Dr. Eugene T. Hansbrough, Poplar Bluff, new Council Vice Chairman.*

*MSMA Councilors re-elected during Annual Session are (left to right): Drs. Irving H. Clark, Kansas City, Seventh District; Bradley, Third District; H. Peter Ekern, Mexico, Fifth District; and Richard Hedges, Excelsior Springs, First District. Dr. Claude Cooper, Thayer, Ninth District, was unable to attend.*

# Dr. Martin installed as MSMA President

Dr. John N. Martin, St. Joseph, was installed as President of the Missouri State Medical Association during ceremonies at the 120th Annual Session, April 16, in Kansas City.

Dr. Martin, who has served as President-Elect during the past year, succeeds Dr. Howard J. McAlhany, of Springfield.

Also at the meeting, Dr. Andrew McCanse was unanimously voted as President-Elect of the MSMA and will assume his position as President during the 1979 Annual Session.

Dr. McCanse, of Kansas City, is Immediate Past Chairman of the MSMA Council and has served several terms as Councilor from the Seventh District.

In other elections, Delegates to the House selected three Vice Presidents, a Speaker and Vice Speaker, two AMA Delegates and two AMA Alternate Delegates.

The new Vice Presidents are: Drs. Donald Fakhoury, North Kansas City; H.B. Ivy, Springfield; and Joseph V. Finnegan, St. Louis. Speaker and Vice Speaker for the coming year are Dr. Edwin K. Burford, Cape Girardeau and Dr. Lily Ann Hanes, St. Louis.

Dr. James C. Sisk, St. Louis, and Dr. Rae W. Froelich, Lebanon, were re-elected as AMA Delegates. Dr. Richard P. Bowles, Liberty, and Dr. Francis X. Lieb, St. Louis, have been re-elected as Alternate Delegates to the AMA.

In Councilor District elections conducted during the Annual Session, Dr. Irving H. Clark, Kansas City, was selected to succeed Dr. McCanse in the Seventh District.

Re-elected to the Council for two-year terms were Dr. Richard C. Hedges, Excelsior Springs, First District; Dr. Richard V. Bradley, St. Louis, Third District; Dr. H. Peter Ekern, Mexico, Fifth District; and Dr. Claude Cooper, Thayer, Ninth District.

These Districts also selected Vice Councilors. Dr. Ronald A. Youmans, Kansas City, was elected to succeed Dr. Irving Clark as Vice Councilor for the Seventh District. The following Vice Councilors were re-elected to their positions: Dr. Gary Dyer, St. Joseph, First District; Dr. Richard Fallon, St. Louis, Third District; Dr. Mary J. McCaffree, Jefferson City, Fifth District; and Dr. Jack Wiles, West Plains, Ninth District.

In a meeting following the MSMA House of Delegates session on April 16, the Council elected Dr. Richard V. Bradley, St. Louis, as Chairman of the Council and Dr. Eugene T. Hansbrough, Poplar Bluff, as Vice Chairman.

The Council also re-elected Dr. John I. Matthews, Jefferson City, as Secretary of the MSMA and Dr. James M. Stokes, St. Louis, as Treasurer.

## Medical staff seminars to be held

The AMA is sponsoring a series of seminars in Medical Staff Leadership during 1978. This is the second year for these seminars designed to provide information about hospital operations and medical staff involvement.

The program will include such topics as Responsibilities of the Medical Staff, Hospital Corporate Budgeting, the Hospital Chief of Staff, Medical Staff Influence in Improving Public Relations, and Health Systems Agencies — Their Role and Function.

These seminars will be held May 26-27 in New York, September 29-30 in New Orleans and November 3-4 in Miami Beach.

Each seminar is approved for 14 hours of Category I CME credit. For further information, write to AMA, Dept. of Hospitals and Health Facilities, 535 N. Dearborn St., Chicago, IL 60610.

## 'Singing Doctors' to receive special award

A Special Citation for service to the community and the medical profession will be given to "The Singing Doctors" of Springfield during the AMA Annual Meeting in St. Louis.

In addition, a special award of $1,000 will be presented to the Greene County Medical Society Foundation, a scholarship loan fund.

The AMA Board of Trustees approved the award in recognition of the group's contributions to medical education. The citation will be presented during the Opening Ceremonies of the AMA House of Delegates, 2:00 p.m. on Sunday, June 18, at the Chase Park Plaza Hotel.

"The Singing Doctors" first performed in 1958 and is composed of Drs. Charles E. Lockhart, Don F. Gose, F.T. H'Doubler, Jr. and James T. Brown, surgeons; Fred C. Coller, pathologist; Harold H. Lurie, internist; and James R. Cook, anesthesiologist.

# MSMA House accepts new policies

A resolution calling for a plan or plans of equitable, democratic representation on the MSMA Council was adopted by the Missouri State Medical Association House of Delegates at the 120th Annual Session, April 13-16, in Kansas City.

The resolution directs the Council to bring forth the plan or plans at the Fall Meeting of the House for action at that time. The Council has requested the Planning Committee to meet with them in June to discuss possible plans.

This resolution was adopted in lieu of several other proposed resolutions which dealt with the issue of membership representation.

In all, the House adopted seven resolutions and referred one during the four-day convention. Complete minutes of the Annual Session will be published in the July issue of MISSOURI MEDICINE.

Following are the resolutions which were adopted or referred:

**Computerized Donor Registry** — Encourages state and nationwide computerized donor registry and resolves to submit this resolution to the AMA House of Delegates in St. Louis.

**Second Opinions in Surgery** — Opposes the concept of mandatory consultation and supports the position that when second or more opinions are mandated by any party that this party is responsible for any consultation fee and the choice of consultant is the responsibility of the patient and/or the attending physician.

**Payment of Hospital Bills by Third Parties** — Recognizes that cost reimbursement formulae for payment of hospitalization by third parties have no incentive to reduce cost, prevent duplication or utilize older, yet adequate facilities.

*Dr. John N. Martin, 1978-79 MSMA President (standing) and Dr. Andrew McCanse, President-Elect, consult during Annual Session.*

*Dr. Howard J. McAlhany, outgoing MSMA President (left) presents the gavel to Dr. Martin.*

**Definition of MSMA Council** — Amends the Bylaws to read: "The Council shall be the executive body of this Association and between sessions shall exercise the power conferred on it by the House of Delegates under the Constitution and Bylaws."

**Responsibilities of a Medical Witness** — Referred back to Medical-Legal Affairs a Resolution directing medical witnesses to avoid becoming partisan in a trial and calling for MSMA censorship of physicians giving false or misleading testimony.

**Ophthalmology Resident Training Programs** — Urges the Missouri Legislature to provide adequate funding for existing medical training programs instead of funding an optometry school.

**Policies of Medicaid** — Recognizes that there are difficulties with the coding and policy interpretations of the Medicaid program and directs the MSMA Action Committee on Socioeconomic Affairs to aid in improvement in this area.

In other actions, the House voted that:

1) A Council resolution on cost of medical care be adopted. The resolution commends the AMA for its leadership in creating a National Commission on the Cost of Medical Care, directs the MSMA to seek to correct misunderstandings about the report and to document and publicize other causes of rising health care cost.

2) A Committee on the Impaired Physician be added to the Standing Committees in the Bylaws.

3) A simplified synopsis of expenditures be included in the Delegates' Handbooks.

4) Copies of the remarks of the President and President-Elect be made available to the House of Delegates following their delivery.

## Six physicians win prizes

Six physicians won attendance prizes during the recent MSMA Annual Session. Their names were drawn from cards submitted to the Technical Exhibits booths.

This year's winners were: Drs. Clyde M. Smith, Liberty; Charles Molden, St. Louis; Milton B. Ozar, Kansas City; Paul F. Max, St. Louis; R. Dean Williams, Kansas City; and C.S. Exon, Jefferson City.

The six physicians left Annual Session richer by two pocket calculators, two attache cases and two cassette tape recorders.

## AMA's convention, June 17-21 in St. Louis

The 127th Annual Convention of the American Medical Association will be held June 17-21 in St. Louis.

The 1978 gathering will mark the end of the giant AMA annual summer meeting. The AMA is shifting emphasis toward multiple smaller sessions across the nation, aimed at providing continuing medical education for physicians.

Next year, 26 regional meetings are scheduled, offering doctors the opportunity to study on weekends and to select meetings closer to home.

However, the AMA will continue to hold the annual winter scientific meeting each year. In 1978, the convention will be in Las Vegas.

The June meeting will offer 55 continuing medical education courses. General sessions will deal with "The Endorphin Story," "Coronary Bypass Surgery," "Effect of Moderate Drinking" and "Newer Development in Computed Tomography Scanning."

The AMA specialty sections will present programs in 28 different medical specialties. Special program topics will include: "Therapeutic Approaches to the Rape Victim," "Psychology-Biology Origins of Maleness and Femaleness," "Physicians' Marriages," and "Nutrition."

Medical motion pictures will be shown during the meeting and 100 scientific exhibits and 125 industrial exhibits will display new developments in medical care.

The AMA Auxiliary will hold its convention at the same time as the AMA meeting. The AMA House of Delegates will hold its meetings at the Chase-Park Plaza Hotel.

In addition, the 20th AMA National Conference on Medical Aspects of Sports will be held June 17 in St. Louis.

The program for the 127th Annual Convention is published in the April 21 issue of the Journal of the American Medical Association.

## Golf tournament also in St. Louis

Normandie Golf Club, St. Charles-Rock Road, St. Louis, will host the 62nd annual tournament of the American Medical Golf Association, June 15-16, according to G. Ray Wempe, M.D., Maryville, president of the AMGA.

Each year this organization conducts a golf competition in conjunction with the annual summer meeting of the American Medical Association and while participation in the tournament is limited to members of the AMGA, membership is open to all doctors of medicine.

"In 1978 we will conduct a 36-hole, two-day, medal-play handicap tournament," said Dr. Wempe. "We will have at least three flights structured according to handicaps and we will include a competition for the spouses of our members."

James Meador, M.D., and George Koehler, M.D., of St. Louis, are co-chairman of the June competition. The Marriott Airport Hotel will be the headquarters for accommodation of out-of-town registrants and all registrants will be invited to the Marriott on Wednesday evening (June 14) to get acquainted.

The first round starts Thursday afternoon. Players will be assigned to foursomes according to their respective handicaps.

Prizes will be awarded for low gross, low net in each flight, for both ladies and men for each day's play; a grand prize will be presented to the 36-hole low gross and low net champion.

All interested physicians should contact Bill Drake, Executive Director-AMGA, P.O. Box 183, Alton, IL 62002 or telephone 618-462-6841.

## Response from AMA to Wage and Price report

The credibility of the Council on Wage and Price Stability's staff report, "A Study of Physicians Fees," was challenged last month by James H. Sammons, M.D., Executive Vice President of the AMA.

Dr. Sammons criticized the report for inadequate reporting of facts and statistical data, the inappropriate interpretation of historical information, the use of data to present only partial conclusions on changes in physicians' fees, and failing to recognize private initiatives that are working to restrain the rate of increase in overall health care costs.

As an example of the use of questionable data, Dr. Sammons charged that the Council's reported physician median income of $63,000 was drawn from a limited survey conducted by **Medical Economics,** which had only a 40% response rate to their survey questions.

Dr. Sammons also attacked the charge that physicians "target" their incomes, or decide how much they want to earn and then set their fees accordingly. "There is no documentation of this assertion in the COWPS report," Dr. Sammons said.

"The AMA will address other issues as they are analyzed. We have not, and will not, avoid the issue of physicians' fees. We have already joined with other segments of the private sector, including physicians, hospitals, and insurers, and have taken steps to seek answers to the overall health care cost question through studies done by the National Commission on the Cost of Medical Care and the 'Voluntary Effort' program. But with documents like this being issued by the government," said Dr. Sammons, "it looks like we will have to continue bearing the brunt of finding constructive answers ourselves. We hope that the Council's allegations will not be used in an attempt to discredit or destroy these important private initiatives."

## *Prescription forms*

**Continued**

When prescribing orally, the physician is required to instruct the pharmacist as to whether substitution is allowed. The pharmacist is to enter the oral instruction on the file copy of the prescription.

In addition to permitting limited substitution, the bill provides for some new procedures which were not present in the old law. The Department of Consumer Affairs, Regulation and Licensing will publish semiannually a list of drug products for which substitution is not permitted. The name of the manufacturer of the drug must appear on the label or in the pharmacist's records so that information on the source of drugs is readily available to physicians.

A further informational aid requires all prescription drugs sold at wholesale to contain on the label the name of the manufacturer, expiration date, batch or lot number and National Drug Code.

The new law preserves the physician's freedom to prescribe for the patient. It also makes it easier for the physician to indicate when a generic drug is adequate. Although the law will require the use of a new prescription form, it will not restrict the physician's ability to use professional judgment in prescribing drugs.

# Editor's Corner

## L'ENVOI

This is the first issue of Missouri Medicine since I became editor. When I took this job, the one request made of me was that I occasionally contribute an editorial. Fortunately, nobody was very specific and they have yet to learn that my idea of editorials is rather unrestrained.

However, on this particular occasion, I believe a conventional effort is in order. Dr. Joseph Finnegan, the retiring editor, has done a fine job and someone should say it loud and clear.

Although it is a peculiar fact that I have never met Dr. Finnegan, I have come to respect his ability very much indeed. For a number of years, I have served on his Publication Committee and Editorial Board. I soon discovered Dr. Finnegan's sound, low-key judgment. I have learned from him. That learning will be put to lots of use because keeping a state medical journal afloat these days is precarious business.

So, to you, Dr. Finnegan, my personal thanks for your teaching and for a job splendidly done. I am very sure these thanks carry with them those of the business staff and of the many colleagues who have been involved with you in the operation of Missouri Medicine over these years. I hope we can get along as well without you. Quite frankly, I doubt it.

**Wilfred E. Wooldridge, M.D.**

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Antisecretory
Antispasmodic

Librax is unique among G.I. medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.

*Librax has been evaluated as possibly effective for this indication.
Please see brief summary of prescribing information on following page.

ROCHE

**Librax®**
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

**Please consult complete prescribing information, a summary of which follows:**

**Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE
Roche Products Inc.
Manati, Puerto Rico 00701

# MSMA Auxiliary Elects Mrs. A. J. Campbell

Mrs. A. J. Campbell, Sedalia, was elected President of the MSMA Auxiliary at the annual convention held in conjunction with the MSMA Annual Session at Crown Center Hotel in Kansas City on April 13-16.

Other Auxiliary officers elected for 1978-1979 are Mrs. Rudy Ruhling, Webster Groves, President-Elect; Mrs. Sam Gaston, Joplin, First Vice-President; Mrs. Pat A. Barelli, Shawnee Mission, Kan., Second Vice-President; Mrs. Kenneth Siu, Jefferson City, Third Vice-President; Mrs. Jerry Meyer, Concordia, Fourth Vice-President; Mrs. James Haddock, Webster Groves, Recording Secretary; Mrs. F. T. H'Doubler, Springfield, Treasurer; Mrs. Charles Cozean, Cape Girardeau, Auditor; Mrs. Robert Stockwood, Sedalia, Corresponding Secretary; and Mrs. George P. Wilson, Columbia, Parliamentarian.

Mrs. Campbell is a 20-year member and Past-President of Pettis County Medical Auxiliary which was organized in 1942 by Dr. Campbell's mother, Mrs. A. J. Campbell, Sr., who served as the first president.

She was President-Elect of the MSMA Auxiliary in 1977-1978 and has served in numerous other capacities in both the Pettis County and state auxiliaries.

Active in community affairs, Mrs. Campbell is a member of the Sorosis Club, PEO, Pettis County Historical Society and the State Historical Society of Missouri. Other activities have included United Way, Girl Scouts and PTA.

She is now serving as a member of the Board of Directors of the Lyceum Theater in Arrow Rock.

Mrs. Campbell attended Southern Methodist University in Dallas, Tex. and graduated from the University of Missouri with a bachelor of science degree in education. She has taught in the Columbia school system.

Dr. and Mrs. Campbell are the parents of three children. Becky is a graduate of Duke University and is employed there in the Medical Center. She hopes to attend medical school in 1979. Jim is a senior at Montana State University and also plans to attend medical school. Bob, the youngest, is employed by a construction firm in Kansas City.

Dr. Campbell is a Diplomate of the American Board of Family Practice and is in private practice in Sedalia, where his father practiced medicine for 53 years.

# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**THE ADMINISTRATION** sent a bill to Congress that would overhaul prescription drug laws. The Drug Regulation Reform Act of 1978 would establish a monograph system for drug approval, give extensive controls over the distribution and dispensing of drugs to the HEW secretary and require patient information labeling for most drugs. In line with House of Delegates action, the AMA is developing amendments to the present law that would speed up the introduction of safe and effective drugs, provide an optional procedure for the new drug approval process and provide for patient information leaflets under certain conditions.

**HEW SPENT $14,000** to prepare the original list of physicians who supposedly received $100,000 from Medicare in 1975 and then spent $122,000 to correct the list, according to the General Accounting Office. The GAO also said the listing was "poorly managed," full of mistakes, prematurely released and expensive. The AMA had found the list to be about 65% inaccurate.

**THE AMA** said state and local medical societies should be involved at every step in HEW's process of designating physician shortage areas, including the actual assignment of physicians. In a letter commenting on regulations to establish new criteria for such areas, the AMA also recommended that the regulations be modified to remove undue reliance on the population-to-physician ratio in designating shortage areas.

**A NATIONAL CONTEST** for physician-speakers has been organized by the AMA Speakers Bureau. The contest was launched to improve the overall effectiveness of medical spokesmanship and is open to any physician chosen by his or her medical society who has officially represented the medical society this year before the media, lay or professional audiences or in legislative testimony. Contest rules have been mailed to state, county and specialty medical societies.

**FIVE MORE JAILS** in six pilot states have been approved for accreditation by the AMA National Advisory Committee to the Program to Improve Medical Care and Health Services in Correctional Institutions. Last year, 16 jails were accredited.

**A NEW DIRECTORY** of medical practice opportunities for physicians, the *Opportunity Directory*, has been published. Important features are the computer-generated indexes which facilitate finding the most suitable opportunity. Also published is the new *Physician Directory*, containing resumes (but not the names) of physicians seeking opportunities. Both directories will be published quarterly. For more information write Physicians' Placement Service, AMA Headquarters.

**THE NUMBER** of Americans living in areas officially designated as having a physician shortage could increase by 56% to a total of 25 million under new criteria proposed by HEW's Bureau of Health Manpower. Under current rules, a shortage level is reached when there are 4,000 or more persons per primary care physician. The new proposal would lower this level to 3,500. Of the estimated 25 million people who would be in shortage areas under the new criteria, 15 million live in inner cities.

**AVAILABLE FROM AMA:** *Aesthetic Surgery . . . What It Can and Cannot Do*, OP 208, provides a realistic look at cosmetic surgery. Cost is 40¢ ea. for 1-99 copies; 25¢ ea. for 100-499 copies; 22¢ ea. for 500-999 copies; and 21¢ ea. for 1,000 or more . . . *How Are Your Eyes?*, OP 008 describes the anatomy of the eye, eye infections, and corrective lenses. Cost is $1.25 ea. for 1-99 copies; 90¢ ea. for 100-499 copies; 85¢ for 500-999 copies; and 82¢ ea. for 1000 or more . . . *Your Body and How It Works*, OP 176, is a pamphlet for parents and young children. Cost is $1.50 ea. for 1-99 copies; $1.30 ea. for 100-499 copies; $1.27 ea. for 500-999 copies; and $1.26 ea. for 1,000 or more . . . *Medicolegal*, OP 440, contains proceedings of the AMA/ABA cosponsored National Medicolegal Symposium in San Francisco last year. Cost of the book is $7 ea. Write AMA, P.O. Box 821, Monroe, Wis. 53566.

**Fishin' . . . give-ermint style!** Photo by JAMES W. CLAWSON, M.D.

# Missouri Kidney Program

## Fiscal Year 1976-1977 Annual Report

**ARTHUR E. RIKLI, M.D.,** ***Columbia***
**Coordinator**

FISCAL YEAR 1976-1977 was a year of change and growth for the Missouri Kidney Program. Organizationally, the Program received its guidance from a new Advisory Council as it made the administrative transition from the Missouri Regional Medical Program to the Missouri Kidney Program. In terms of services, the Missouri Kidney Program served more end stage renal disease (ESRD) patients than in any previous year, added two facilities to the ten already participating in the Program and made more resources available to those participating facilities than in any previous year.

This report is a summary of FY 1976/1977 and contains information on Missouri's ESRD patients served by Missouri Kidney Program's participating facilities, the services they received and the cost of their health care. All data were collected by the Program in an effort to describe the Program's ESRD patient population and its needs.

### I. PATIENTS

During FY 1976/1977, 628 Missourians were dialysis patients in the Missouri Kidney Program's 12 participating facilities. This represents all of the Missouri end stage renal disease facilities recognized by the Social Security Administration as dialysis facilities, but, at present, does not include services provided by the Veterans Administration hospitals or services provided by Missouri Kidney Program participating facilities to non-Missouri residents. This fiscal year's patient census can be described as follows:

#### A. *Patient Admissions*

On July 1, 1976, 378 ESRD patients were receiving dialysis in the 12 participating facilities. During the fiscal year, 277 were added to the facilities' patient rolls. These admissions included 199 patients initiating dialysis for the first time; 20 patients transferring from other Missouri facilities; 16 patients transferring from out-of-state facilities; and 42 patients who returned to dialysis after unsuccessful kidney transplants.

Two of the "admissions" figures are particularly significant—the number of patients initiating dialysis and the number who returned to dialysis following unsuccessful transplantation. Although no government or health authority has been able to reliably pinpoint the incidence of ESRD hemodialysis candidates in the national population, the incident of five per 100,000 is frequently quoted. During FY 1976/1977, the Missourians who initiated dialysis represent an incidence of four per 100,000.

The 42 unsuccessful transplant grafts represent approximately 50% of the kidney transplants performed during FY 76/77 on the participating facilities' patients. Thirty-four of these unsuccessful grafts failed within one year; eight failed after one year.

#### B. *Patient Discharges*

During FY 1976/1977, 205 patients were discharged from the participating facilities' hemodialysis rolls. Ninety-one of these discharges were expirations; 77 were kidney transplants; 12 patients transferred to other Missouri facilities; 15 patients transferred out-of-state; nine patients temporarily recovered renal function; and one patient voluntarily withdrew from treatment.

The 91 patients who died represent 15% of the total number of patients served during the fiscal year. The lives of these 91 patients were extended by dialysis an average of 18.11 months per patient. Cause of death data on these patients has been difficult to obtain, but this data element has been built into the Program's data collection system and will be reported in the future.

The 77 transplants represent 12% of the total number of patients served and 38% of the number of discharges. Of these 77 transplants, 13% were reported as from living related donors.

#### C. *Patient Profiles*

Fig. 1 displays the total number of patients served by the 12 participating facilities and the patients' residence by county. If Missouri's ESRD-population can be generally characterized, it can be said that the median age was 45 years for men and 50 years for women. Of a total of 628 patients, 337 were men and 291 were women. The ratio of nonwhite to white patients is approximately 1 to 2,

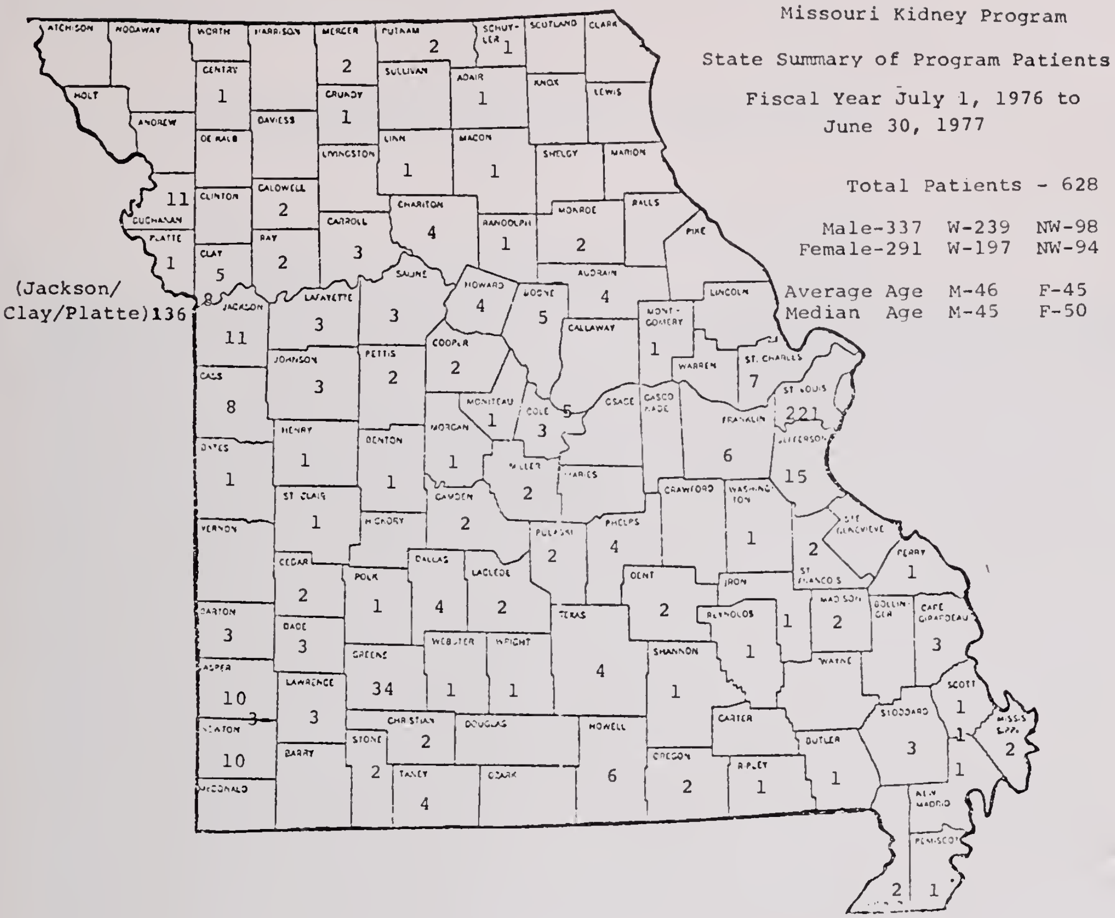

Missouri Kidney Program
State Summary of Program Patients
Fiscal Year July 1, 1976 to June 30, 1977
Total Patients - 628
Male-337 W-239 NW-98
Female-291 W-197 NW-94
Average Age M-46 F-45
Median Age M-45 F-50
(Jackson/Clay/Platte)136
Atchison
Nodaway
Worth
Harrison
Mercer
Putnam
Schuyler
Scotland
Clark
Holt
Andrew
Gentry
Daviess
Grundy
Sullivan
Adair
Knox
Lewis
DeKalb
Livingston
Linn
Macon
Shelby
Marion
Buchanan
Clinton
Caldwell
Carroll
Chariton
Randolph
Monroe
Ralls
Platte
Clay
Ray
Saline
Howard
Boone
Audrain
Pike
Lincoln
Jackson
Lafayette
Callaway
Montgomery
Warren
St. Charles
St. Louis
Cass
Johnson
Pettis
Cooper
Moniteau
Cole
Osage
Gasconade
Franklin
Jefferson
Bates
Henry
Benton
Morgan
Miller
Maries
Crawford
Washington
St. Clair
Hickory
Camden
Pulaski
Phelps
Ste. Genevieve
Perry
Vernon
Cedar
Dallas
Laclede
Dent
Iron
St. Francois
Polk
Texas
Reynolds
Madison
Bollinger
Cape Girardeau
Barton
Dade
Greene
Webster
Wright
Shannon
Wayne
Jasper
Lawrence
Christian
Douglas
Howell
Carter
Butler
Stoddard
Scott
Mississippi
Newton
Barry
Stone
Taney
Ozark
Oregon
Ripley
New Madrid
McDonald
Pemiscot

Fig. 1

## TABLE 1

## MISSOURI KIDNEY PROGRAM
## 1967/1977 REIMBURSEMENT BY SOURCE AND FACILITY AGAINST CHARGES TO ESRD PATIENTS FOR SERVICES RENDERED

| | | Reimbursement | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Faculty* | *Total Charges* | MEDICARE | | MEDICAID | | OTHER | | MOKP | | UNPAID | |
| # | $ | $ | % | $ | % | $ | % | $ | % | $ | % |
| 1 | 1,095,000* | 653,507 | 60 | 21,900 | 2 | 142,350 | 13 | 277,243 | 25 | 0 | 0 |
| 2 | 1,728,695 | 1,146,035 | 66 | 21,498 | 1 | 304,925 | 17 | 231,800 | 13 | 24,437 | 1 |
| 3 | 1,247,339 | 721,848 | 58 | 65,542 | 5 | 196,260 | 16 | 224,100 | 18 | 39,589 | 3 |
| 4 | 915,000* | 517,563 | 57 | 27,450 | 3 | 91,500 | 10 | 122,937* | 13 | 155,550 | 17 |
| 5 | 1,452,734 | 715,238 | 49 | 76,015 | 5 | 175,288 | 12 | 132,000 | 9 | 354,193 | 24 |
| 6 | 703,462 | 435,364 | 62 | 72,361 | 10 | 89,737 | 13 | 106,000 | 15 | 0 | 0 |
| 7 | 689,999 | 331,193 | 48 | 7,567 | 1 | 77,513 | 11 | 60,000 | 9 | 213,725 | 31 |
| 8 | 681,181 | 538,138 | 79 | 72,152 | 11 | 11,452 | 2 | 59,205 | 9 | 235 | 0 |
| 9 | 129,115 | 79,871 | 62 | 0 | 0 | 18,526 | 14 | 29,000 | 22 | 1,718 | 1 |
| 10 | 147,058 | 97,538 | 66 | 3,889 | 3 | 8,196 | 6 | 30,715* | 21† | 6,720 | 4 |
| 11 | 105,080 | 29,255 | 28 | 49,532 | 47 | 0 | 0 | 13,000 | 12 | 13,293 | 13 |
| 12 | 150,339 | 82,707 | 55 | 9,761 | 6 | 12,910 | 9 | 14,000 | 9 | 30,961 | 21 |
| Totals | $9,045,002 | $5,348,257 | 59 | $427,667 | 5 | $1,128,657 | 13 | $1,300,000 | 14 | $840,421 | 9 |

* Estimate by MoKP.
† Includes Patients Served by Memphis.
Source: Monthly reports from MoKP participating ESRD facilities.

### THE MISSOURI KIDNEY PROGRAM PARTICIPATING FACILITIES

Washington University
Chromalloy American Kidney Center
4949 Barnes Plaza
St. Louis 63110
*Project Director:* Eduardo Slatopolsky, M.D.

Kansas City Dialysis and Transplant Association
1734 East 63rd, Suite 300
Kansas City 64110
*Project Director:* Robert Muth, M.D.

St. Luke's Hospital
Wornall Rd. at 44th
Kansas City 64111
*Project Director:* Thomas Crouch, M.D.

University of Missouri Medical Center
N456 Medical Center
Columbia 65201
*Project Director:* Karl Nolph, M.D.

St. Louis University
Fermin Desloge Building
1325 S. Grand Blvd.
St. Louis 63104
*Project Director:* Robert Cuddihee, M.D.

Lester Cox Medical Center
1423 N. Jefferson
Springfield 65802
*Project Director:* Jack Glover, M.D.

Deaconess Hospital
6150 Oakland Ave.
St. Louis 63139
*Project Director:* Satya Sagar, M.D.

Jewish Hospital of St. Louis
216 S. Kingshighway
St. Louis 63110
*Project Directors:* Herbert Lubowitz, M.D.
David Malone, M.D.

St. Louis Children's Hospital
500 S. Kingshighway
St. Louis 63110
*Project Director:* Barbara Cole, M.D.
*(1977 Acting Project Director:* Allen Robson, M.D.)

Missouri Delta Community Hospital
Highway 61 North
Sikeston 63801
*Project Director:* Jean Rene Dupont, M.D.

Homer G. Phillips Hospital
2601 N. Whittier
St. Louis 63113
*Project Director:* Earl Shelton

St. John's Medical Center
2727 McClelland Blvd.
Joplin 64801
*Project Director:* J. C. MacLaughlin, M.D.

which is considerably higher than Missouri's 1 to 11 nonwhite to white population ratio.

## II. ESRD SERVICES

The 12 Missouri Kidney Program facilities were operating 142 stations as of June 30, 1977. During the last eight months of the fiscal year, an average of 3,830 outpatient and inpatient treatments were administered each month. The total number of treatments (outpatient, inpatient, home and home training) averaged 4,806 per month. Nineteen percent of all treatments reported by the 12 facilities were home treatments; 2% were home-training treatments.

The ratio of professional manpower to patient at each of the 12 participating facilities differed during FY 1976/1977, but the following summary can be made:

| *Discipline* | *FTE*[*] |
|---|---|
| Physicians | 34.5 |
| Nurses | 115.8 |
| Dialysis technicians | 29.0 |
| Others | 48.2 |
| Total | 227.5 |

[*] Information from facilities' FY 1977/1978 applications for state funds.

The 227.5 FTE professional personnel, when viewed in terms of the total number of patients served by the 12 facilities, represent a professional manpower/patient ratio of 1 to 3.

## III. COST OF SERVICES

The amount of $9,045,002 was charged to the 628 Missouri ESRD patients who were served by the 12 facilities participating in the Missouri Kidney Program (Table 1). These facilities had requested $2,167,767 from the Missouri Kidney Program to meet the cost of services for which they are not reimbursed from patients or third-party payers. Missouri's 78th General Assembly appropriated $1,200,000 in FY 1976/1977 to the Missouri Kidney Program to assist kidney patients in meeting their health needs. Of this, $115,000 was allocated to the central program and $1,085,000 for patient care services. An additional $215,000 was acquired by the Program as an emergency appropriation from the 79th General Assembly, making a total of $1,300,000 available for patient care services in FY 1976/1977. This emergency appropriation reversed an unfavorable funding trend.

The following table presents total charges against Missouri patients by the 12 participating facilities and disposition by source of reimbursement. The unpaid amount represents charges absorbed by the facilities.

Reimbursement against charges from:

| | | % |
|---|---|---|
| Medicare | $5,348,257 | 59 |
| Medicaid | 427,667 | 5 |
| Insurance and other sources | 1,128,657 | 13 |
| Missouri kidney program | 1,300,000 | 14 |
| Unpaid charges | 840,421 | 9 |
| Total charges | $9,045,002 | 100 |

(Note: The average charge for a maintenance dialysis treatment in the 12 participating facilities was $200 in FY 1976/1977 with the range of charges being $131 to $238. The facilities reported that their costs for maintenance dialysis ranged from $97 to $351 per treatment with an average of $177.)

The facilities recovered $6,904,581 (77% of their charges) from their patients, other sources and

(Continued on page 213)

**contains no aspirin**

tablets
**Darvocet-N® 100** (IV)

100 mg. Darvon-N® (propoxyphene napsylate)
650 mg. acetaminophen

Lilly

700565

*Additional information available to the profession on request from*
*Eli Lilly and Company*
*Indianapolis, Indiana 46206*

Eli Lilly and Company, Inc.
Carolina, Puerto Rico 00630

*"...Sleep that knits up the ravell'd sleave of care..."*

—WILLIAM SHAKESPEARE, *MACBETH*, ACT II, SC. 2

# Insomnia
## a shade of blue that often accompanies depression

And, in anxiety/depression, Adapin® (doxepin HCl) often helps restore disturbed sleep patterns, such as early morning awakening, with a single daily dose at bedtime![1] Adapin quickly relieves the patient's anxiety, gradually brightens his mood and outlook, with optimal antidepressant response usually evident within two to three weeks.

1. Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

**Brief Summary of Prescribing Information**
**ADAPIN**® (doxepin HCl) Capsules

**Indications**—Relief of symptoms of anxiety and depression.

**Contraindications**—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

**Warnings**—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, nor on effect in nursing infants.

Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

In patients who may use alcohol excessively potentiation may increase the danger inherent in any suicide attempt or overdosage.

**Precautions**—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

**Adverse Reactions**—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

Adverse effects occurring infrequently include extrapyramidal symptoms, gastrointestinal reactions, secretory effects such as sweating, tachycardia and hypotension. Weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash and pruritus may also occur.

**Dosage and Administration**—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

Antianxiety effect usually precedes the antidepressant effect by two or three weeks.

**How Supplied**—Each capsule contains doxepin, as the hydrochloride: 10 mg, 25 mg, 50 mg and 100 mg capsules in bottles of 100 and 1000.

For complete prescribing information please see package insert or PDR.

When they see life
in shades of blue...
help them see life
in all its colors.

**Adapin**®
(doxepin HCl)

single daily dose recommended h.s.

18-356
18-357
18-358
18-359

10 mg capsules
25 mg capsules
50 mg capsules
NEW 100 mg capsules

PENNWALT
Pennwalt Prescription Products
Pharmaceutical Division
Pennwalt Corporation
Rochester, New York 14603

# The AMA Computer Systems in Medicine Consultative Services Program

The American Medical Association recognizes the potential that computers have in the health care setting. Therefore, the AMA has initiated the **Computer Systems in Medicine Consultative Services Program.** Through this program, physicians who are considering computer services as well as current users who want to improve or expand their computer applications can obtain an objective viewpoint and expertise in methods and equipment.

Computers have the potential to be a tremendous asset to the medical community, and have possible application in some or all of the following:

- Improving patient care
- Creating more accessible medical records
- Improving financial management and control
- Reducing the rate of increasing costs
- Improving facility and personnel utilization

The **Consultative Services Program** has established expertise extending from general decision-making on the utilization of computers in medicine to detailed systems design, programming and implementation of systems. The Program's activities include: needs analysis; alternatives development; specifications development; proposal evaluation; and systems audits.

While the major thrust of the **Consultative Services Program** will result from interest in the use of computers or computer-related services, the primary goal of the consultant is to recommend the most advantageous treatment of each situation. **The focus is the needs and objectives of the client,** not the promotion of computerized solutions.

For a more detailed description of this new and valuable service or to arrange a consultative visit, contact: John A. Guerrieri, Jr., Program Director, Consultative Services Program, at (312) 751-6417.

third party payers. Nine percent of the charges was absorbed by the facilities and 14% was recovered from the Missouri Kidney Program.

Missouri Kidney Program facility awards in FY 1976/1977 were based upon the Advisory Council's assessment of each facility's performance in meeting the health needs of its ESRD patients. Special recognition was given to the effort made by each to provide high quality services at a reasonable cost. The Advisory Council is critically reviewing its method of allocating funds and is formulating objective criteria upon which to base its future allocation of patient care funds.

## IV. BEYOND FISCAL YEAR 1976/1977

The Missouri Kidney Program's plans for FY 1977/1978 include acceleration of cost containment programs in line with state and national concerns about the rising costs of health care. These efforts will include promotion of transplantation and home care, which are two recognized cost effective approaches to ESRD care. Another Program concern is improving patient access to ESRD services. Ten of Missouri's ESRD dialysis facilities are in the two largest metropolitan areas. Rural patients are frequently required to drive as many as 300 miles round-trip to receive outpatient treatments at a distant facility three times a week. The Program plans to investigate the possibility of establishing ESRD facilities in rural communities to decrease patient travel requirements.

In 1975, Missouri had a mortality rate ascribable to kidney disease of 28.34 per 100,000 persons, the fifth highest rate in the nation. It has been conservatively estimated that an annual rate of five persons per 100,000 become good candidates for dialysis. Missouri is now reaching four patients per 100,000. It is possible, then, that not all Missourians with ESRD who could benefit from hemodialysis are receiving services. The Program will continually monitor the number of patients who initiate dialysis at all Missouri ESRD facilities to determine whether or not our state's ESRD services are being extended to all patients who need them. Our current information on kidney patients does not include follow-up on transplant patients who do not return to dialysis, cause of death information and number of transplants by donor type. This information is required to assist in defining the benefits of kidney substitution therapy.

The Program has been functioning as interim staff for the federal End Stage Renal Disease Network #9 to assist that organization in its development. The Program also has been working with Missouri's Kidney Foundation chapters, health systems agencies and all other interested parties in evaluating the effectiveness of the state's ESRD services and planning for future services.

**The Missouri Kidney Program Advisory Council***

Robert Adams
Administrator
Research Medical Center, Kansas City

Charles Anderson, M.D.
Transplant Surgeon
Washington University School of Medicine, St. Louis

Lt. Col. W. A. Dolan (Retired)
Missouri State Highway Patrol, Jefferson City

Shirley Lieber
Consumer
St. Louis

Shirley Melton
Hemodialysis Coordinator
St. Luke's Hospital, Kansas City

William Mitchell
Director
State Division of Special Services, Jefferson City

James Murphy, M.D.
Cardiologist
Clayton

Karl Nolph, M.D.
Nephrologist
University of Missouri Medical Center—Columbia

Marvin Proffer
State Representative
Jackson

June Rhodes
State Health Coordinating Council
Milan

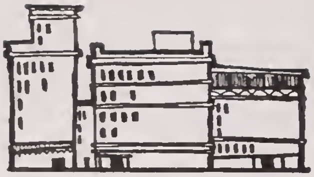
John Russell
State Senator
Lebanon

Warren Sights, M.D.
Harry S. Truman Memorial Veterans Hospital
Columbia

Russell Stone
Kidney Foundation of Eastern Missouri and Metro-East St. Louis

Dan Witt, D.O.
Kansas City

* Members of the Advisory Council were chosen because of their personal experience and expertise in health services and not as representatives of specific agencies or geographic areas.



# NEWS

## From the Medical Schools

### ST. LOUIS UNIVERSITY

The first annual Bauman Symposium on Sports Medicine was held on April 11 at the Chase-Park Plaza Hotel in St. Louis. Sponsored by St. Louis University Medical Center and the University's Athletic Department, the Symposium honored *C. A. Bob (Doc) Bauman* in recognitioin of his 50th anniversary as St. Louis University athletic trainer and for his many years of distinguished service as trainer of professional baseball's St. Louis Cardinals and St. Louis Browns.

Dr. Bauman

Prominent coaches, trainers and physicians from Harvard, Boston, Washington State and Pennsylvania State universities attended the symposium to share the latest information on sports medicine. Topics of discussion included health dangers to week-end athletes, physical and emotional stress on children aged seven to 17 in organized sports and injuries to female athletes.

A tribute dinner followed the symposium. Proceeds from the dinner will be used to establish a Bob Bauman athletic scholarship at the University.

*R. William Burmeister,* M.D., assistant professor of internal medicine, has been elected president of the Missouri Society of Internal Medicine. Dr. Burmeister will serve a one-year term ending March, 1979.

Dr. Burmeister was installed as president of the MSIM during the combined annual meeting of the American College of Physicians-Missouri Region and MSIM held recently in cooperation with St. Louis University School of Medicine.

*Alan M. Lambowitz*, Ph.D., assistant professor of biochemistry, and *B. George Barisas*, Ph.D., assistant professor of biochemistry, have been awarded separate birth defects research grants by the March of Dimes. The Basil O'Connor Starter Research Grant Awards represent a combined total of $43,000 in grant support for the first year of the two-year studies.

Dr. Lambowitz is attempting to determine conditions under which cells of a species of bread mold with genetic defects can be genetically repaired by bits of genetic material from normal mold cells and other microbes.

Dr. Barisas is working on the development of a new instrument which will enable measurement of heat energy changes that occur when molecules of hemoglobin, the oxygen-carrying substance in red blood cells, combine with each other or with oxygen, and when the combined molecules separate.

*Robert E. Olson,* M.D., Ph.D., professor and chairman, Department of Biochemistry, has been elected to a two-year term of office with the Association of Medical School Departments of Biochemistry at the Annual Meeting of the Association held recently in Key Biscayne, Fla. Dr. Olson will serve one year as president-elect and one year as president.

### WASHINGTON UNIVERSITY

*Edward G. Jones,* M.D., professor of anatomy and neurobiology, has been appointed a Macy Faculty Scholar for 1978-1979.

Dr. Jones is one of 25 awardees at 19 medical schools in the United States and Canada whose research during the next year will be supported by the Josiah Macy, Jr., Foundation. He will continue his research in neurobiology while on sabbatical at Monash University in Victoria, Australia.

*David Sabatini,* M.D., Ph.D., professor and chairman of the Department of Cell Biology, New York University School of Medicine, gave the 25th annual Robert J. Terry Lecture on April 25 at the School of Medicine.

A native of Argentina, Sabatini graduated in 1947 from the National College of Rosario and received his M.D. in 1954 from the University of Litoral, Rosario. In 1961, he came to the United States on a Rockefeller Fellowship to work in biochemical cytology at Yale University Medical School. He received his Ph.D. degree in 1966 from Rockefeller University and joined the faculty there. He joined the New York University faculty in his current position in 1972.

For his contributions to cell biology, Sabatini has received several honors and is currently president-elect of the American Society for Cell Biology and has served two terms on the editorial board of *The Journal of Cell Biology.*

Why some viral infections persist for months or years is the subject of a study by *Jacques Perrault,* Ph.D., assistant professor of microbiology and immunology. He has received a $20,000 March of Dimes birth defects research grant to investigate persistent infections.

## UNIVERSITY OF MISSOURI-COLUMBIA

*Dr. Barbara Levin,* who is completing her second year of residency training in family and community medicine at the Medical Center, has been selected to receive one of 18 Mead Johnson Scholarship Awards for 1978-1979. Representatives from the American Academy of Family Practice chose the winners.

All awardees will receive $1,200 during their third year of residency training. They were selected from 114 nominees on the basis of scholarship, aptitude for family medical practice and leadership in both their medical schools and training programs.

Dr. Levin received her M.D. degree from the University of California-San Francisco and with her husband, Dr. Joshua Gettinger, began her residency in family and community medicine at the Family Medical Care Center at UMC in 1976. Training includes caring for patients at the Callaway County Family Medical Care Center in Fulton.

The relationship of a highly disabling and often lethal hereditary disease to nerve growth factor, a hormone essential to normal nerve development, is the subject of research by *Dr. Morris W. Pulliam,* assistant professor of neurosurgery at the School of Medicine. Dr. Pulliam has received a $18,040 March of Dimes grant for the first year of a two-year project.

## UNIVERSITY OF MISSOURI-KANSAS CITY

Two new faculty members, *Dr. Dennis C. Szymanski* and *Dr. Narendra Khare,* are joining the staff in the Department of Surgery at the Truman Medical Center. Dr. Szymanski graduated from the Wayne State School of Medicine in 1970 and specializes in neurosurgery. He recently completed his residency training at the Henry Ford Hospital. In 1969, he served as a Fellow in Tropical Medicine at the Sumve Hospital in Tanzania-East Africa.

*Dr. Narendra Khare,* urologist, was educated in India and received his M.D. degree in 1966. He completed several years of residency training in that country before coming to the United States in 1972. His residency training includes general surgery at the New Jersey College of Medicine, the VA Hospital in Leavenworth, Kan. and the Truman Medical Center from 1972 through June, 1977. Most recently, Dr. Khare has been a Research Fellow in Urology at the University of Missouri-Columbia Medical Center.

*Dr. Marjorie Sirridge,* a senior docent and professor at the School of Medicine, was selected as an outstanding educator by the 1977-1978 Chapter of Mortar Board of UMKC. "Excellence in Education" was the theme of the Board which acknowledged Dr. Sirridge for the special quality she brings to her profession.

During the month of May, *Dr. Se Mo Suh,* chief of pediatrics and head of the Bone Mineral Research Unit at the Shriner's Hospital for Crippled Children in Honolulu, was a visiting professor. Dr. Suh presented several lectures to the faculty and students during his visit. They included an endocrine conference entitled "Magnesium Metabolism," a grand rounds presentation on "Ricketts" and a research conference on "Renal Response to Parathormone and Calcitonin." Formerly a Research Fellow in Pediatrics at Harvard Medical School in 1960-1963, Dr. Suh is currently a member of the Lawson Wilkin's Pediatric Endocrine Society and the Western Society for Pediatric Research.

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# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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**JERRY TEMPLER, M.D., WILLIAM E. DAVIS, M.D.**
*and* **DONALD J. JOSEPH, M.D.,** *Columbia*

# Foreign Bodies of the Airways, External Ear Canal and Upper Digestive Tracts

BEFORE THE DEVELOPMENT of illuminated endoscopes, foreign bodies that lodged in the airways or upper digestive tract were occasionally removed through a surgical incision, but more frequently caused the death of the patient. Death resulted from obstruction of the air or food passage or by penetration of its wall causing hemorrhage or abscess formation. Smaller ingested foreign bodies usually traverse the entire intestinal tract and are eliminated with the stool. Small loose foreign bodies of the bronchi may occasionally be coughed up.

## INCIDENCE AND ETIOLOGY

Aspiration of foreign bodies is a major cause of accidental death in small children, and most instances of foreign body aspiration and ingestion occur in this age group. To a small child, a significant portion of the examination of a new object is performed by the mouth and, occasionally, the object is swallowed or aspirated. Frequently, the child is eating while running or walking about: he trips and aspirates a small spherical item of food such as a peanut, bean or kernel of corn.

Upholsterers, shoe repairmen, seamstresses and others who frequently use their mouths as receptacles for nails, pins or other objects occasionally swallow or aspirate the object. A drunken person is more apt to aspirate an object or attempt to swallow a bolus that is too large for the esophagus to accommodate. Cocktails and hors d'oeuvres are often accompanied by toothpicks or small plastic swords that the unalert may ingest.

Ill-fitting dentures hinder thorough chewing of the food. The palatal portion of the denture prevents the food from being monitored by the palate and an unsuspected foreign body may be swallowed. The victim is not aware of the object during the voluntary phase of swallowing. By the time it reaches the hypopharynx, he is unable to reverse the swallow. A previously existing stricture may catch a bolus of meat or smoother objects.

## SIGNS AND SYMPTOMS

The adult or child with sufficient language development can relate the incident and frequently

**Aspiration or ingestion of foreign bodies occurs in all age groups and is a major cause of death. This article contains detailed information about the symptoms, diagnosis and removal of foreign bodies from the hypopharnyx or esophagus, trachea and bronchi, external ear canal and nose.**

**Dr. Templer is Associate Professor of Surgery, Dr. Davis is Associate Professor of Surgery and Dr. Joseph is Professor of Surgery, Division of Otolaryngology, University of Missouri Medical Center.**

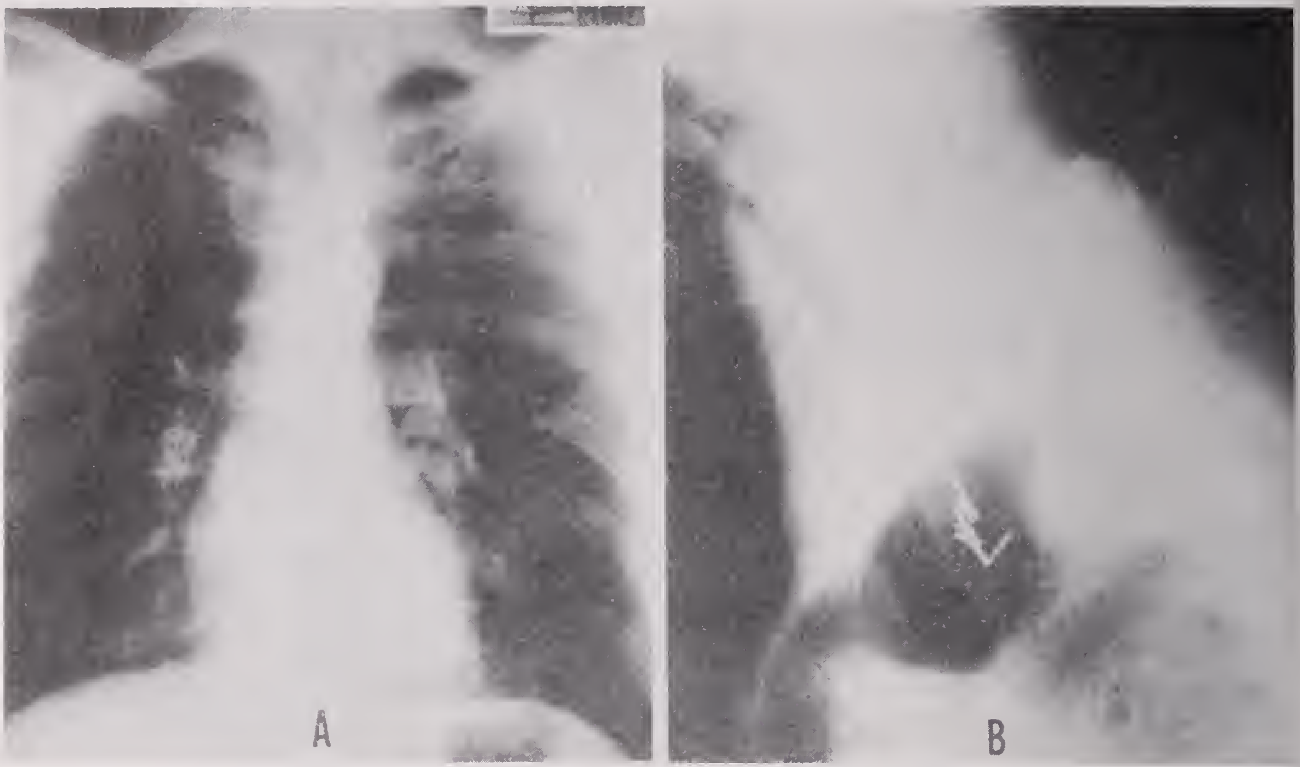


Fig. 1 PA and lateral views showing the spring from a clothespin in the upper esophagus.

describe the foreign body. He may be able to localize the object by pointing to the area of pain.

In smaller children, information must be obtained from the parents or other observer. A sudden, unexpected episode of gagging, coughing or cyanosis when the child has had an object in his mouth is suggestive. After the episode, the symptoms frequently subside and the parents and physician may discount the possibility of a foreign body until complications arise.

Objects lodging in the hypopharynx are invariably sharp. The point(s) pierces the mucosa during the muscular contractions of swallowing and prevents its descent into the esophagus. The patient describes a painful sticking sensation during swallowing and usually will point to the location of the lodged object.

Esophageal foreign bodies make swallowing painful or impossible. The patient drools and refuses to take food or liquids. In small children, an esophageal foreign body behind the trachea may cause enough swelling to produce progressive airway obstruction.

Small foreign bodies that stick in the larynx cause gagging, coughing and hoarseness. If the larynx is obstructed by a larger object, the patient will die within minutes if the object is not removed. Immediately, the victim is unable to talk or breathe and is obviously very alarmed. Heimlich[1] describes these patients as clutching their throat with their hand. He feels that this sign should be the signal for an obstructed larynx. The episode is frequently referred to as a "cafe coronary." The victim aspirates a bolus of food and asphyxiates.

Tracheal and bronchial foreign bodies may be subtle. They stimulate coughing by local irritation of the respiratory mucosa. Auscultation of the chest will reveal wheezing and rhonchi in the involved segments. If the foreign body is bouncing around, sounds of the impact can be heard. Long-standing symptoms and findings may even be attributed to asthma. Any small child who has access to a suitable object and is observed to have a sudden episode of coughing is presumed to have aspirated the object.

## Diagnosis

The most common cause for missing the diagnosis is failure to consider the possibility. The history of ingestion or aspiration of an object does not complete the diagnosis until the object is accurately localized. X-ray films made from exposures in multiple planes will accurately localize radio-opaque foreign bodies. Esophageal foreign bodies will be oriented in the coronal plane (Fig. 1). Objects in

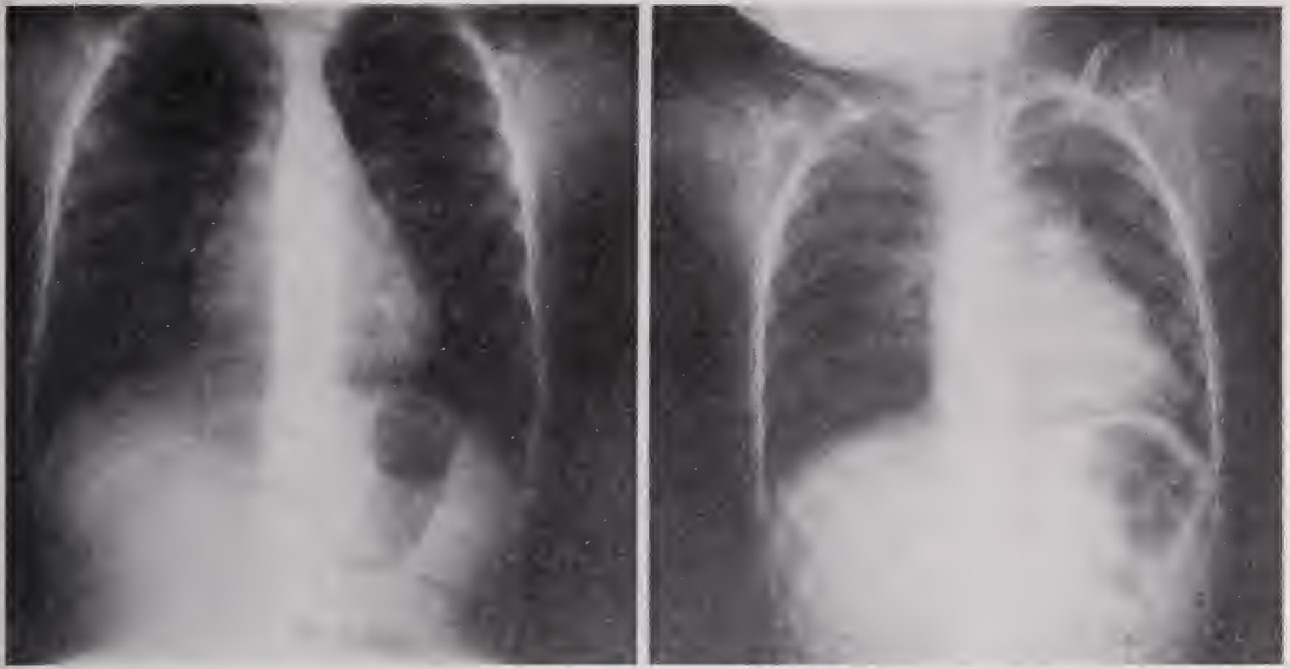


**Fig. 2** Right mainstem bronchus obstructed by foreign body. (Left) Inspiratory film appears normal but (right) expiratory film demonstrates a shift of the mediastinum to the left.

the larynx will be oriented in the sagittal plane. Those in the trachea may assume any orientation, but are clearly within the air column in lateral and posterior-anterior films. Positive contrast films frequently are not very helpful and the contrast material may make subsequent removal by endoscopy more difficult.

Foreign bodies in the hypopharynx and larynx can usually be discovered by mirror examination. Patients complaining of a fish bone lodged in the throat are commonly encountered. By a careful, patient, thorough examination of the bone can usually be found. It may be in the tonsil, pharyngeal wall or base of the tongue. The bone may be embedded except for a small spicule that may appear to be a strand of mucous. With meticulous mirror examination of the hypopharynx, the protruding end can be found. Occasionally, the mirror will show the end of a bone in profile when it is exceedingly difficult to see it end on. Occasionally, a bone cannot be found and the symptoms usually subside in two or three days. In this instance, the bone is presumed to have been dislodged and swallowed.

When a mainstem bronchus is obstructed by a foreign body, no air will enter the involved lung. The opposite lung will expand during inspiration and the mediastinum will shift toward the obstructed lung. Films made during inspiration and expiration will show the shift of the mediastinum (Fig. 2). In time, the obstructed lung will become atelectatic. With partial obstruction, the object may act as a one-way valve and the involved lung becomes overexpanded and hyperlucent.

## Treatment

A series of rigid endoscopes from the smallest to the largest sizes is necessary for consistent successful retrieval of foreign objects (Fig. 3). A graduated series of forceps designed for grasping the common types of foreign bodies is also essential (Fig. 4). Experience may be gained by inserting

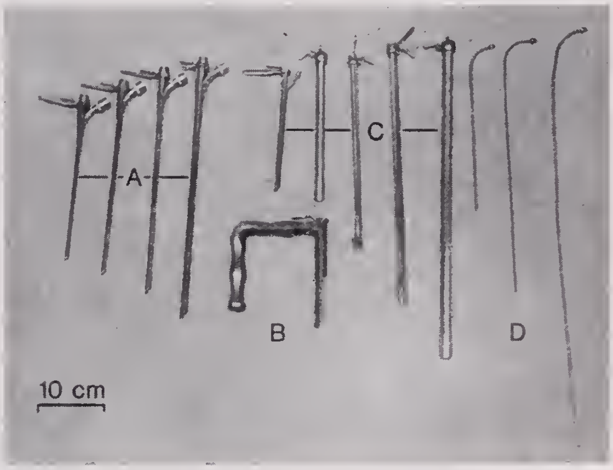


**Fig. 3** Endoscopic Instruments. (A) Series of ventilating bronchoscopes. (B) Laryngoscopes. (C) Esophagoscopes. (D) Suction tips.

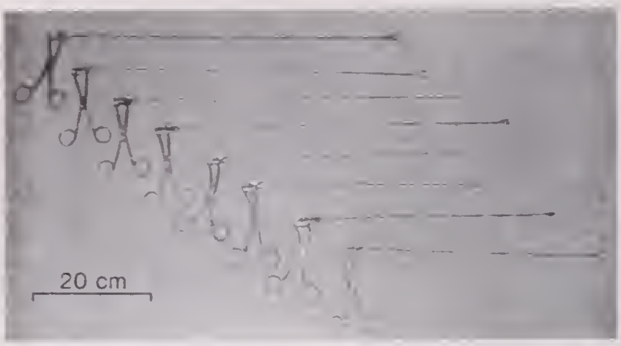


**Fig. 4** Foreign body forceps.

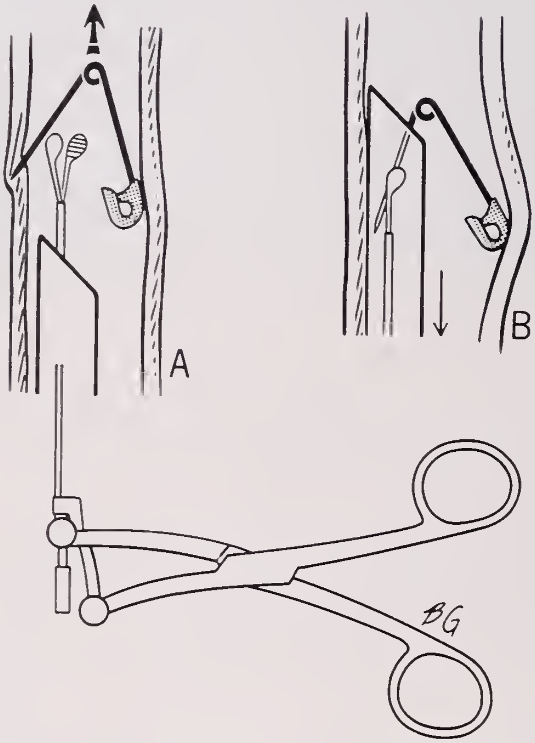


**Fig. 5** (A) The pin is grasped and the point is freed by pushing it caudad. (B) The point is pulled up into the esophagoscope and held in this position while the esophagoscope is carefully removed.

and removing commonly encountered objects from the airways and upper digestive tracts of anesthetized dogs.

The planning for removal is the most important single step of the procedure. An identical object should be obtained and carefully examined. The surgeon should practice grasping and manipulating the object through the appropriate endoscope. The surgeon and anesthetist must discuss the steps of the procedure in detail to insure continuous control and protection of the airway.

### LARYNX

When the larynx is obstructed by an aspirated foreign body, the Heimlich maneuver should be performed immediately.[1] The maneuver consists of a sudden force applied to the abdomen to produce an explosive cough by forcing residual air from the lung. If the object is not dislodged from the larynx by the maneuver, an emergency cricothyrotomy will open the airway.[2] The object is then exposed and removed by direct laryngoscopy.

### PHARYNX AND HYPOPHARYNX

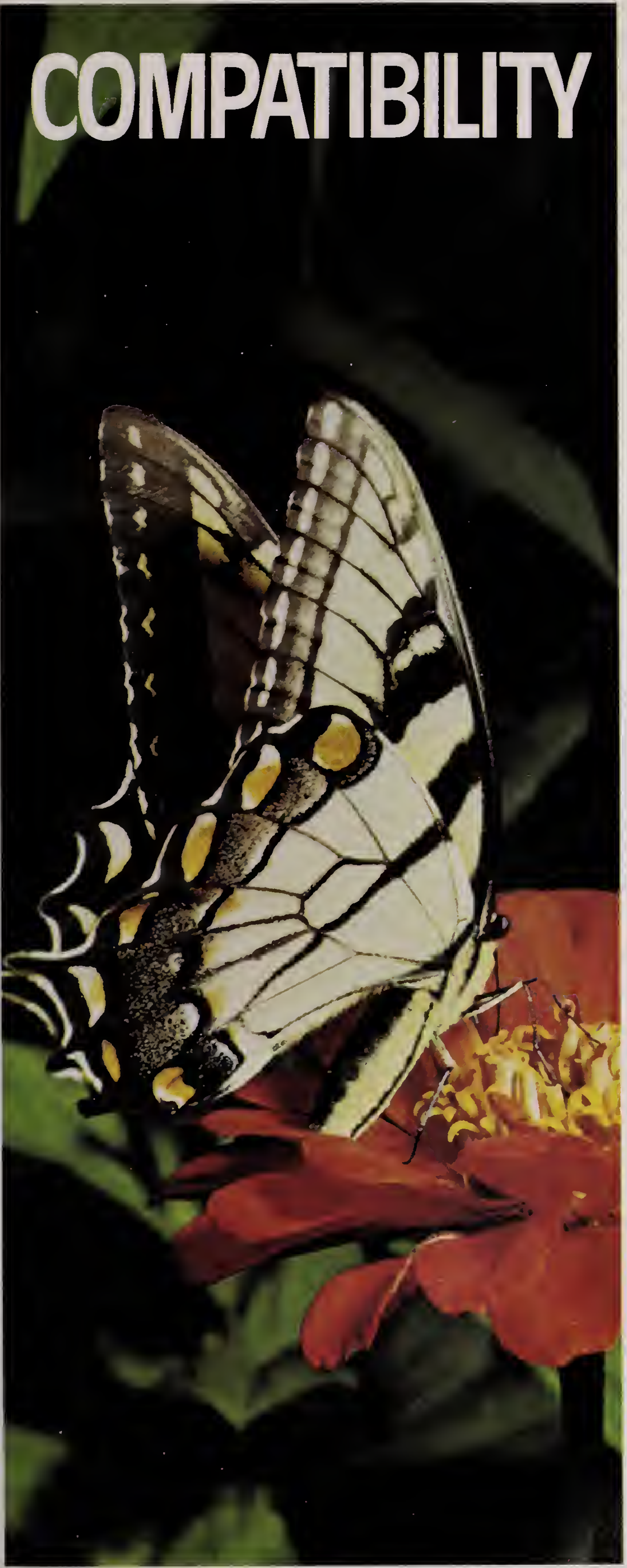
If a pharyngeal or hypopharyngeal foreign body can be seen directly or by mirror and the patient is able to cooperate, it may be removed without endoscopy. The object in the hypopharynx is grasped with curved Kelly forceps and removed while monitoring the procedure by a laryngeal mirror. Since the spatial relationships are reversed, coordination of eye-hand movement is difficult, but can be accomplished with concentration. General anesthesia is required for the patient who is not able to cooperate.

### ESOPHAGUS

Esophagoscopy for removal of esophageal foreign bodies may be performed with the patient under general endotracheal anesthesia or deeply sedated and locally anesthetized. Removal is not an emergency procedure unless the airway is compressed; therefore, the procedure should progress in a routine, orderly manner.

The goal of the procedure is to remove the object without perforating the esophagus. The esophagoscope is introduced into the hypopharynx and the distal tip is positioned behind the larynx. The cricopharyngeus muscle is normally in moderate spasm and the esophagus may be perforated here by undue pressure. With gentle pressure, the muscle soon relaxes and the esophagoscope is advanced into the thoracic esophagus. The tip is advanced; each wall is searched until the object is found and its orientation established.

Simply grasping a sharp, irregularly shaped object and pulling it out will tear the esophageal wall and may result in mediastinitis and death of the patient. Sharp points or edges must be controlled. Using an open safety pin as an example, the point is grasped and pulled up into the esophagoscope, and the esophagoscope gently removed (Fig. 5). The blunt keeper will glide along the mucosa during removal without causing injury. The grip on the



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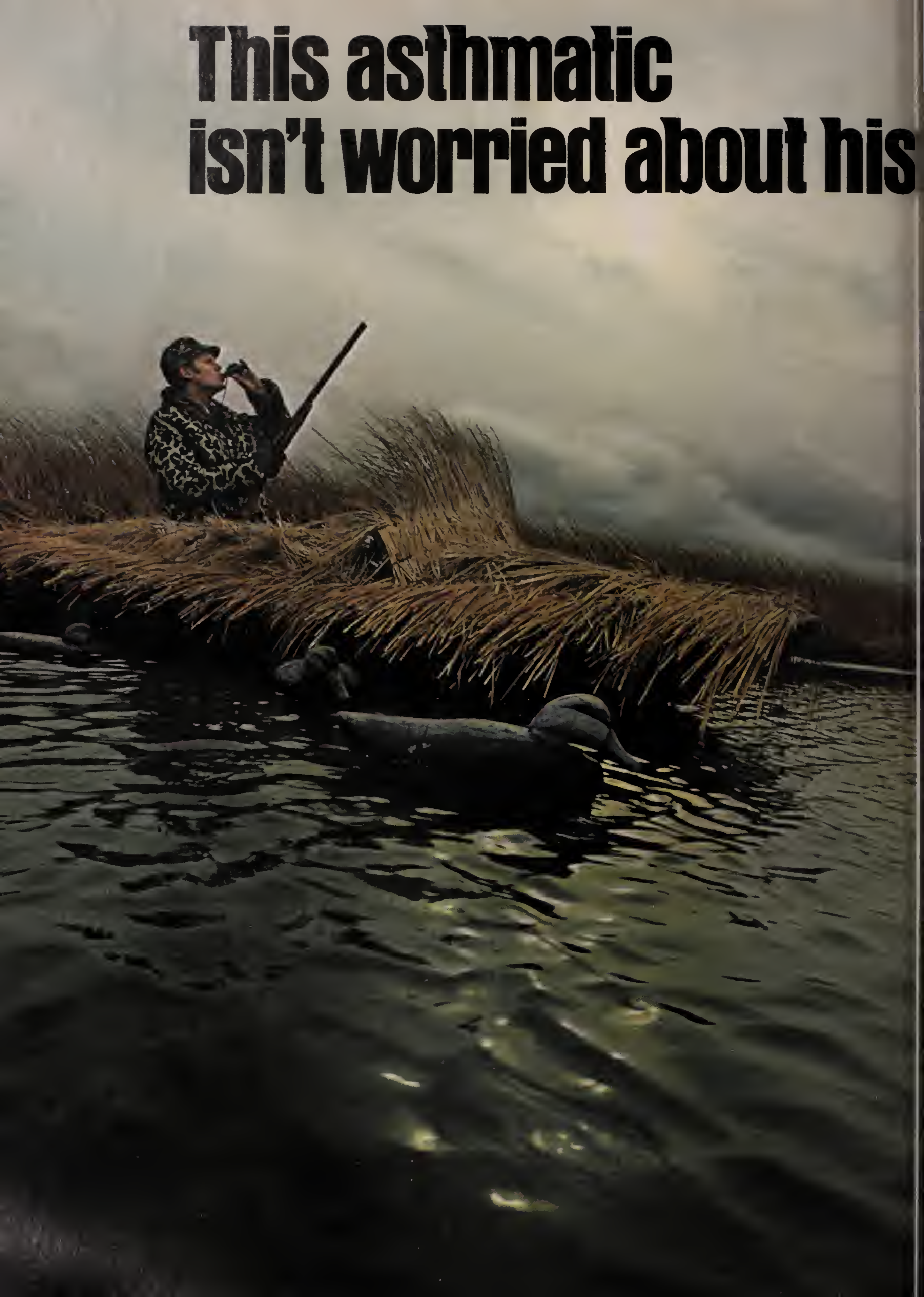
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**Reference** 1 Data on file Mead Johnson Pharmaceutical Division.

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pin must be firm to prevent it from being lost in the pharynx or larynx.

The Fogarty and Foley catheters have very limited use in the removal of foreign bodies. They can remove small loose round objects from the esophagus, but these will usually pass spontaneously without treatment. The ballooned catheters are dangerous for removal of sharp objects.

### Trachea and Bronchi

Bronchial foreign bodies must be removed as soon as possible to prevent secondary complications such as atelectasis, bronchopneumonia or abscess formation. Vegetable foreign bodies, such as peanuts or beans, are very irritating and cause inflammation and edema. Pulmonary complications make administration of anesthesia and removal of the object more difficult and dangerous.

An inhalation anesthetic agent is administered by mask. When the patient is well oxygenated and anesthetized, a ventilating bronchoscope is introduced into the trachea. The anesthetic agent is then administered through the bronchoscope. The airways are searched until the object is found. It is grasped with the appropriate forceps and removed.

Vegetable foreign bodies pose a real challenge to the endoscopist. The object must be held firmly to prevent dropping, but not so tight as to crush it into multiple foreign bodies. If the involved lung is atelectatic and the object is accidentally dropped into the trachea, it may be sucked toward the only aerated lung. The patient will die unless the object is retrieved within seconds.

### Penetrating Foreign Bodies

Sharp objects may penetrate the wall of the hypopharynx or esophagus and become lodged in the soft tissue of the neck and chest.[3] Smooth objects that are present for long periods of time may slowly migrate through the wall. Penetration is caused by swallowing, gagging and neck movements. The object may enter another hollow viscous causing a fistula, for example, a tracheoesophageal fistula. It may also enter a fascial space and cause abscess formation or a major vessel causing a fatal hemorrhage. The object must be carefully localized and removed by direct surgical exploration.

### External Ear Canal Foreign Bodies

A nonirritating foreign body such as a pebble may be present in the external canal for years without the patent's being aware of its presence. A vegetable foreign body will cause a painful otitis externa in a shorter period of time. Occasionally, a crawling or flying insect will enter the ear canal. Its frantic attempts to escape are uncomfortable to the victim. The insect may be killed by filling the canal with concentrated alcohol.

The skin of the external canal is extremely sensitive and any object must be removed gently to avoid a painful ordeal by the patient. Small objects may be removed by irrigating the canal with warm water or by suction. Soft irregular objects are easily grasped with forceps and removed. Vegetable foreign bodies often swell and become firmly impacted. They will have to be removed piecemeal.

Most children will allow one or two gentle attempts at removal which, with proper planning, should be successful. To illustrate, we will assume the object to be removed is a steel ball bearing. This object is not easily grasped with forceps and attempts may push it medially through the tympanic membrane. The surgeon should remember that the canal is not of uniform caliber but has a narrowed isthmus near its midpoint. The posterior and superior canal walls do not have the irregularities of contour of the anterior and inferior walls. Also, if the involved ear is dependent, the object when manipulated will fall out of the ear rather than medially toward the tympanic membrane.

The child is wrapped securely in a sheet and held supine by strong assistants. The head is extended over the edge of the table to make the posterior-superior walls dependent. The head is then rotated to turn the involved ear down. The physician sits on the floor under the patient's head. Using a hand-held otoscope for illumination, a blunt right-angled hook is gently advanced past the foreign body. The distal end of the hook is rotated behind the object and with gentle traction the ball bearing is pulled down to the speculum and removed.

If multiple traumatic attempts are unsuccessful, a general anesthetic should be administered to the child for removal. If a painful external otitis is present, the object should not be removed without anesthesia.

### Nasal Foreign Bodies

The small child may not tell his parents he has pushed the object into his nose. Soon, it will cause irritation and unilateral mucoid or purulent drainage will be observed. This finding should alert the physician to the possibility of a foreign body.

*(Continued on page 226)*

**CORINNE FARRELL, M.D., WILLIAM D. McFARLAND, Ph.D.,**
**ERWIN J. KLINK, JR., M.S., SAMUEL J. DWYER, III, Ph.D.**
*and* **GWILYM S. LODWICK, M.D.,** *Columbia*

# Automated Interpretation of Breast Thermograms

Cancer of the breast is the leading cause of death in American women between the ages of 39 and 48. It is the most common cause of death from cancer among American women of all ages. There are 90,000 new cases of breast cancer diagnosed each year, with approximately 33,000 resulting deaths in the United States alone. The risk of the disease increases with each subsequent decade. In the years between 1950 and 1973, there has been the suggestion of increased incidence. This fact, coupled with static survival rates, leaves an increase in the population at risk.

Unfortunately, there are no known methods to prevent breast cancer. This, united with increasing incidence and little improvement in treatment methods, encourages attempts to diagnose the early cancer before it becomes palpable (thus thought to be less chance of spread to other parts of the body). The American Cancer Society and the National Cancer Institute mounted a massive offensive in 1973 by supporting widespread use of developmental techniques for early breast cancer detection. The techniques put in use were physical examination, mammography and thermography. Two hundred and seventy thousand women between the ages of 35 and 74 were to be screened at yearly intervals for five years, with follow-up correspondence for another five years.[1–3]

TABLE 1

PARAMETERS FOR BILATERAL COMPARISON AND CHANGE

Significant unilateral variation in two or more of these parameters should be considered abnormal.

1. Areolar temperature[9]
2. Background temperature[9]
    a. quadrants
    b. central
3. Vessel number[9]
4. Vessel caliber[9]
5. Vessel temperature[9]
6. Contour[5]
7. Pattern overall[9]
8. Specific suspicious signs under consideration
    a. pendent sign[6]
    b. loops and ribbons[7]
    c. belaying signs[7]
    d. Carot sign[7]
    e. Moya-moya sign[7]
    f. out of focus vessels[8]
    g. six o'clock vessel[3, 4]
    h. smudged nipple[3, 4]
    i. clustering lateral vessels[3, 4]
    j. fragmentation of upper outer quadrant vessels[3]

The rationale of this project was to locate nonpalpable lesions, enabling early diagnosis and treatment and, hopefully, increasing long-term survival rates as tumors of small, nonpalpable but imageable size could be potentially curable.

Mammography or a soft-tissue roentgenogram study of the breast has proven to be accurate for diagnosing most lesions. However, the issue of possible radiation hazard from yearly mammographic examination is a matter of concern at this time.

Thermography, a technique for evaluation of the infrared emission of the skin surfaces of the breast, is an innocuous modality which can be repeated with impunity, is quickly and easily performed and is comfortable for the patient. Consequently, it is being evaluated as a screening tool in detection of breast disease. An abnormal thermogram may be used to focus attention upon apparently well women and women with a higher risk of having or developing breast cancer. Thermography, at this stage of development, lacks spatial resolution and specificity for cancer, but it often "raises a flag" for breast disease.[4]

At the present time, thermography is more an art than science, and objective application and evaluation of specific major and minor abnormal thermographic parameters will aid in promoting the necessary scientific approach. At present, thermography does not replace the use of mammography in mass screening.

## Interpretation of Thermograms

Medical thermography provides a visual representation of the natural infrared (thermal) radiation emitted by the human body. The quantity of

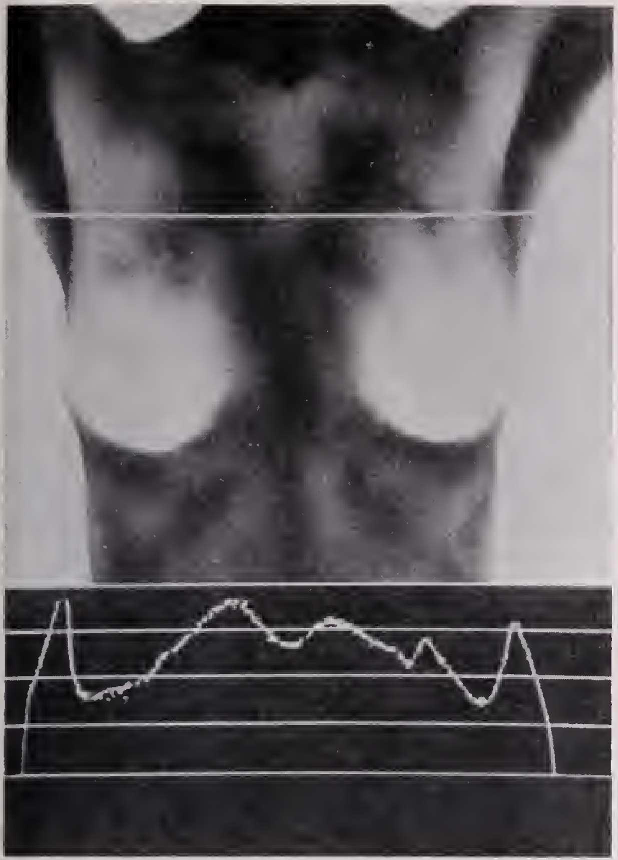

**Fig. 1** A normal thermogram exhibiting bilateral symmetry of areolar and nonvascular surfaces of the breasts and of vessel number, size and temperature.

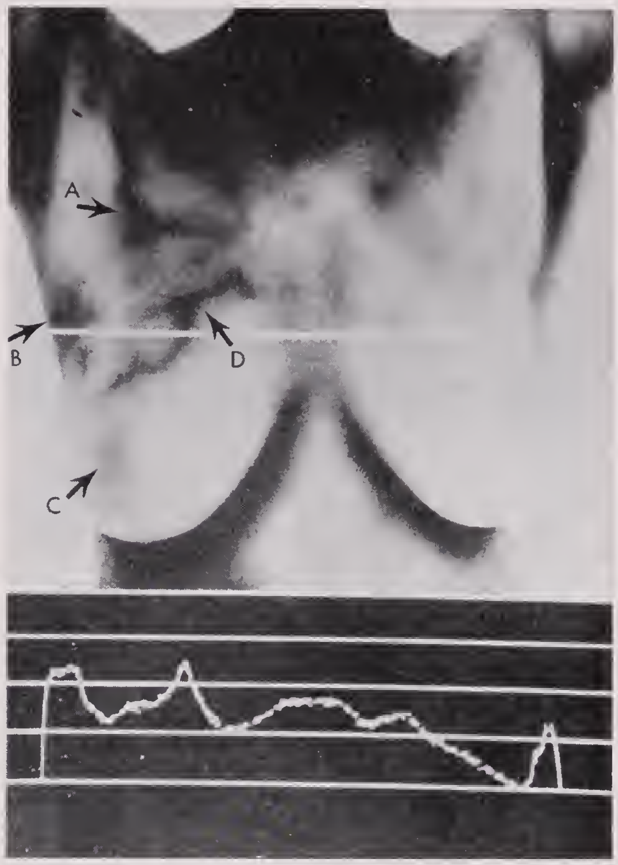

**Fig. 2** Image is an abnormal thermogram displaying pronounced asymmetry of vessel number, size and temperature (A, B and D) and increased temperature of areolar (C) and background regions of the patient's right breast.

radiation emitted is proportional to body surface temperature. Using an infrared scanner, this radiation is displayed as a television-type image on a cathode ray tube. The thermogram is a photograph of this thermal image. Each patient has three thermographic views—frontal and right and left oblique.

The essential element of breast thermogram interpretation is the comparison of opposite regions for relative symmetry or change as well as an overall impression of the heat pattern. The physician interprets the thermogram by observing side-to-side variations and noting changes from normal thermal patterns and breast contours. Table 1 lists parameters for bilateral comparison and change. While there is a common tendency to symmetry, temperature patterns and surface contours are not always bilaterally identical. Various physiological factors, including menstrual cycle, hormonal status, metabolism and associated blood flow, cause changes in the skin temperature pattern. These factors are often influenced by breast disease. Changes may be indicated by a diffuse increase in nonvascular skin temperature caused by direct conduction of heat away from the tumor or by an increase in the temperature of surface veins associated with increased blood temperature and flow in these vessels or both. Contour abnormalities may appear as a surface retraction or bulge indicative of underlying disease. The contour of the breast should be symmetric with no flattening, rigidity or distortion of the margin.[4-7]

Figs. 1 and 2 illustrate black-hot thermograms. Fig. 1 is a normal thermogram exhibiting relative bilateral symmetry of areolar and nonvascular, or background, surfaces of the breasts. Relative bilateral symmetry of vessel number, size and temperature is also apparent. In contrast, Fig. 2 shows an abnormal thermogram with pronounced asymmetry of vessel number, size and temperature. Areolar and background temperatures of the patient's right breast are also increased. Contours in both figures are considered uniform and normal.

The profile below each thermogram graphically represents the temperature along the horizontal

**Objective application and evaluation of specific major and minor abnormal thermographic parameters to aid in the interpretation of breast thermograms are being investigated. The goal is to develop and evaluate parameters for a computer-implemented, clinical diagnostic model which would provide a method of early breast cancer detection for clinical use and an accurate tool for patient evaluation and mass screening of women who apparently are well. Dr. Farrell and Dr. Lodwick are from the Department of Radiology, University of Missouri Medical Center. Dr. McFarland, Mr. Klink and Dr. Dwyer are from the Bioengineering/Advanced Automation Program, Department of Electrical Engineering, University of Missouri.**

**This work was supported by NIGMS 17729-08.**

temperature line which crosses the breasts. Temperature-line location may be adjusted upon patient scanning to show regions of interest for bilateral comparison. A peak in the profile represents a relative temperature maximum and a valley represents a relative temperature minimum. Notice, for example, the peaks just below the temperature line at points that the line crosses prominent vessels in Fig. 2. Clinically, breast baseline temperature and the range of breast temperature in centigrade degrees may be determined from the profile.

Human interpretation of thermograms can be quite variable depending on the experience of the interpreter, knowledge of patient history, physiological variations in thermographic pattern and the quality of the thermographic image. An approach to improving the reliability of thermographic interpretation and to investigating and characterizing parameters for bilateral comparison and change from past examinations is to digitize the thermograms and analyze the resulting digital thermogram by computer. Specificity and sensitivity for breast cancer detection, hopefully will be improved by this method of quantitative parameterization over the purely subjective interpretation of thermograms. It is the goal of our research to develop and evaluate parameters for a computer-implemented, clinical diagnostic model which would provide a method of early breast cancer detection for clinical use and an accurate tool for patient evaluation and mass screening of apparently well women.

Computerization of thermography is being investigated in various institutions.[10-14] Computer-aided interpretation of thermograms in the Bioengineering/Advanced Automation Laboratory includes four stages: optical input, feature extraction, pattern recognition and classification. The research team gives the following explanation of each stage.

Optical input entails scanning of thermograms in photographic transparency or Polaroid print form by a TV camera-image digitizer-computer system. The camera of the system is being focused in Fig. 3. As it is scanned, each thermogram is reproduced in digital format and stored in computer memory for processing and on nine-track magnetic tape or a magnetic disk for a permanent record. Digital image resolution is 240 lines by 256 elements.

Upon processing, the digital thermogram is displayed on a cathode-ray tube for feature extraction. Anatomic regions of interest are the features which are then interactively circumscribed on the digital thermogram display via a Graf-pen acoustical digitizer as shown in Fig. 4, resulting in the computer extraction of bilateral pairs of data subsets, each pair of which is to be evaluated for symmetry. Fig. 5 illustrates the bilateral regions of interest which are circumscribed for evaluation on the anterior thermogram. Contours are to be traced for categorization.

Computerized statistical measures which enable texture discrimination are to be employed as a pattern recognizer for region evaluation. Various measures are being investigated for best estimation of side-to-side texture differences. These measures are based on the spatial gray-level dependence matrix, the gray-level, run-length matrix or the local gray-level extrema which can be computed from each data subset. Curve-fitting techniques are to be used for assessment of contour data.

Classification requires comparison of regional measures and contour measures for significant side-to-side variation. Exactly which measures are dependable indicators for breast abnormality and what magnitude of difference between breasts is significant is to be determined by use of existing computerized decision models and verified by successful matching of automated classification results with clinical diagnosis. At present, automated interpretation of breast thermograms is being studied as a two-class problem (normal and abnormal), although patient information and computer evaluation data are cataloged to facilitate further investigation of abnormality to identify disease type.

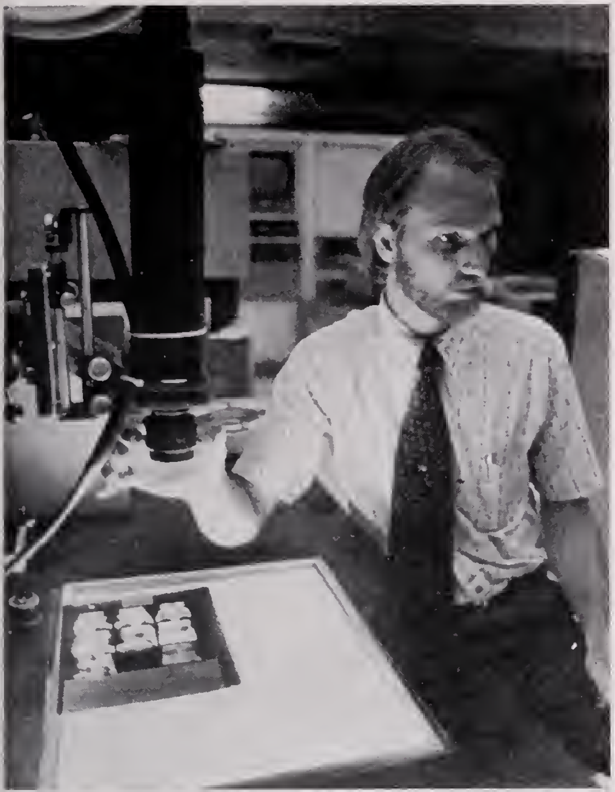

Fig. 3 The first stage of the computerization of breast thermograms is focal adjustment of the scanning camera which is the optical input device of the camera-image digitizer-computer system.

A preliminary study, which has been performed, was based on 102 thermographic prints, consisting of 54 normal thermograms and 48 abnormal thermograms. The Spatial Gray-Level Dependence Method[15] of texture evaluation was applied to interactively extracted bilateral pairs of data subsets. First order measures, in particular the absolute difference of regional average gray level, enabled appreciable simulation of human interpretation. This success has prompted the ongoing establishment of a large library of thermograms which is composed of clinically proven patient studies which make possible precise evaluation of measurement performance and correctness of classification.

Fig. 4 The second stage of thermogram computerization is interactive feature extraction where regions of interest are traced on a CRT via a Graf-pen acoustical digitizer.

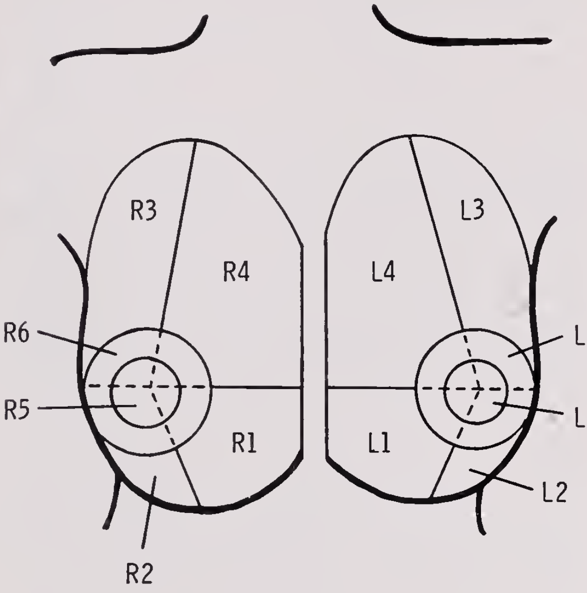

Fig. 5 Bilateral regions of interest which are circumscribed for evaluation on the anterior thermographic view: R1, L1 Lower inner quadrant; R2, L2 Lower outer quadrant; R3, L3 Upper outer quadrant; R4, L4 Upper inner quadrant; R5, L5 Areolar; R6, L6 Central region.

## Summary

Breast cancer has the highest incidence rate and is the leading cause of cancer death in American women. The diagnosis and treatment of cancer in an early localized stage is the best known method, to hopefully increase long-term survival rates. Thermography, when used in conjunction with a physical examination and mammography, is a useful technique for tumor detection. Computerization of thermography lends quantitative objectivity to human interpretation of breast thermograms, a procedure which is subjective and not yet standardized. Computer-aided thermographic interpretation hopefully will expand normal and abnormal criteria, thus improving the diagnostic accuracy of thermography as a screening tool for early breast cancer detection.

*Acknowledgement:* The authors express appreciation for the use of clinical material made available by C H. Joseph Chang, M.D. of the University of Kansas Medical Center, Barbara Threatt, M.D. of the University of Michigan and Harold J. Isard, M.D. of Einstein Medical College, Philadelphia.

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# *Foreign Bodies*

*(Continued from page 221)*

General anesthesia for removal is rarely indicated. Adequate illumination by a head light or head mirror is essential. The nasal mucosa is sensitive and the child will resist examination, so he must be restrained while the nose is suctioned and examined. The parents are informed that the removal may cause the nose to bleed. A topical anesthetic agent and vasoconstrictor are useful for the comfort of the patient and exposure of the object. The nasal ala is retracted laterally by a speculum to expose the interior of the nose. Care must be taken to prevent the object from being displaced into the pharynx and aspirated.

Small soft objects, such as foam rubber stuffing from a toy animal or wadded paper, can be easily grasped with forceps and removed. Smooth hard objects, such as a steel ball bearing, are the most difficult to grasp. Curved Kelly forceps are strong enough to grip the bearing firmly; bayonet forceps generally are not. The forceps are introduced into the nose; the bearing is firmly grasped and gently removed. The probability of causing significant injury to the nose during removal of the object is minimal.

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Physicians will learn the latest methods of treating athletic injuries at the American Medical Association's 20th Conference on Medical Aspects of Sports which will be held on Saturday, June 17, in St. Louis (Stouffer's Riverfront Towers) in conjunction with the 127th Annual Convention of the AMA.

Speakers will include Col. James L. Anderson, Director of Physical Education for the United States Military Academy at West Point, who will report on the integration of the new young women cadets into the Academy's rigorous physical training program, which resulted in stress fractures at an incidence rate ten times as high for the women as for the men.

Program chairperson for the Conference will be Christine E. Haycock, M.D.

Further information on the Conference is available from the Department of Environmental, Public and Occupational Health, American Medical Association, 535 N. Dearborn St., Chicago, Ill. 60610.

**BRUCE A. SCHAINKER, M.D.,** ***St. Louis***

# Autopsy Diagnosis of Progressive Supranuclear Palsy Mistaken Clinically for Stroke

## *Case Report*

**This is the first report of a case of this newly recognized syndrome of progressive supranuclear palsy (PSP) that has been diagnosed, rather than confirmed, by postmortem examination. The incorrect clinical diagnosis of stroke had been made previously by an internist and a neurologist. Dr. Schainker is a Resident in Pathology, the Jewish Hospital of St. Louis and Washington University School of Medicine.**

In 1964, Steele, Richardson and Olszewski described postmortem brain pathology common to seven adult males, all of whom were suffering from a similar progressive neurological decompensation characterized by volitional (supranuclear) gaze paralysis, dysarthria, dystonic rigidity of the neck and other muscles and cricopharyngeal dysfunction with recurrent pneumonia.[1] Subsequently, this same syndrome, which is called progressive supranuclear palsy (PSP), was also documented in adult females.[2, 3]

This is a report of a case of PSP clinically misinterpreted as stroke by both an internist and a neurologist. To my knowledge, it is the first report of a case of PSP that has been diagnosed rather than confirmed by postmortem examination.

### Case Report

This 76-year-old bedridden, retired lawyer was on his way by ambulance to the Jewish Hospital of St. Louis when he suffered a cardiopulmonary arrest and died. He was to have been admitted for evaluation of chronic difficulty in swallowing.

The clinical story related by the private physician just prior to the postmortem examination appeared to be an uninvolved case of cerebrovascular disease. The patient, who was hypertensive for years, suffered a left hemiparesis several years prior to death. Thereafter, he was bedridden and had difficulties in talking. The private physician, who made periodic housecalls, had been called recently to see the patient for difficulty swallowing. An examination on the day before death disclosed the inability to swallow and new right-sided paralysis and global aphasia. The physician interpreted the findings to be the result of new bilateral strokes superimposed upon an old right cortical infarct. The patient was to have been admitted to the hospital for further diagnostic evaluation but died prior to admission.

No infarcts of the brain were discovered at autopsy. This negative finding prompted careful clinical review, including an interview with the deceased's wife. It became apparent that the patient had not incurred repeated strokes but, rather, had suffered from an unrecognized, insidiously progressive neurological disease. Five years before death at the age of 71, he fractured a fibula upon falling. He attributed his fall to "decreased vision." Thereafter, he evidently began experiencing difficulty in walking and frequent stumbling. He became so disabled that three-and-a-half years before death, he had hand rails installed around the rooms of his house "in order to get about." Within a month, he entered a university hospital. He was noted to have a shuffling gait, right leg drag, right leg extensor weakness and absent Babinski reflexes. Results of a spinal tap, electroencephalogram and brain scan were normal. He was discharged after one week with the incorrect diagnosis of transitory paralysis of the right leg secondary to a cerebrovascular accident.

During the next three years, he developed extensor nuchal rigidity that interfered with his ability to feed himself. He was noted by others to always "look up into the air." He bent his torso at the waist in order to look downward. His speech slowly became slurred over the years. His upper and lower extremities became difficult to move bilaterally. Deglutition became increasingly difficult.

A half year before death, amantidine was prescribed for parkinsonian symptoms. The medication did increase the patient's mobility, but it also precipitated acute urinary retention requiring transurethral resection of the prostate. While a patient in the hospital, his physicians became alarmed by his marked extensor nuchal rigidity and expeditiously evaluated him for meningitis. A neurologist observed, in addition to the neck stiffness, generalized hypertonicity of the limbs, negative Kernig's and Brudzinski's signs, a brisk jaw jerk, grasp reflex of the right hand, absent Babinski reflexes, "postoperative" lethargy and left hemiparesis. Apparently, the private physician related the erroneous history of "left" rather than right hemiparesis secondary to stroke. The neurologist, in turn, erroneously interpreted unilateral dystonic rigidity and bradykinesia as hemiplegia consistent with stroke; he diagnosed old right-cortical stroke and diffuse bilateral frontal disease on the basis of cardiovascular arteriosclerosis. No further therapy was tried thereafter.

In the six months before death, the patient's dysarthria and bradykinesia progressed to anarthria and a terminal akinetic, bedridden state. He could communicate, however, by blinking yes or no. His swallowing became so difficult that he could not drink liquids, chronically aspirated and frequently coughed in an explosive, productive fashion. Throughout his course, he never experienced muscular fasciculation or atrophy or marked perceptible dementia.

## AUTOPSY

At autopsy, both acute and chronic aspiration pneumonia were evident. The coronary and cerebral arteries were minimally atherosclerotic. There was no evidence of hypertensive cardiovascular disease. The majority of the pathology lay within the cranium. The brain was small, weighing only 1120 gm (normal average, 1400 gm). The lateral and third ventricles were slightly dilated, indicating loss of brain substance. Unlike the findings in parkinsonism, the substantia nigra was well pigmented. The superior colliculi and superior cerebellar peduncles were atrophied. The dentate nuclei of the cerebellum were shrunken and glassy; their normal dentigerous outlines were smeared and indefinite. Microscopical findings included nerve cell loss, neurofibrillary tangles (Fig. 1), gliosis, granulovacuolar degeneration, axonal degeneration and demyelination of nuclei of the medial basal ganglia, brain stem and cerebellum. Infarcts, as had been expected clinically, were absent. Senile plaques, which probably were normal for the patient's age, were present in the cerebral cortex, and especially in the medial temporal lobes.

## DISCUSSION

This patient's clinical course was typical for the syndrome of PSP. The syndrome classically affects

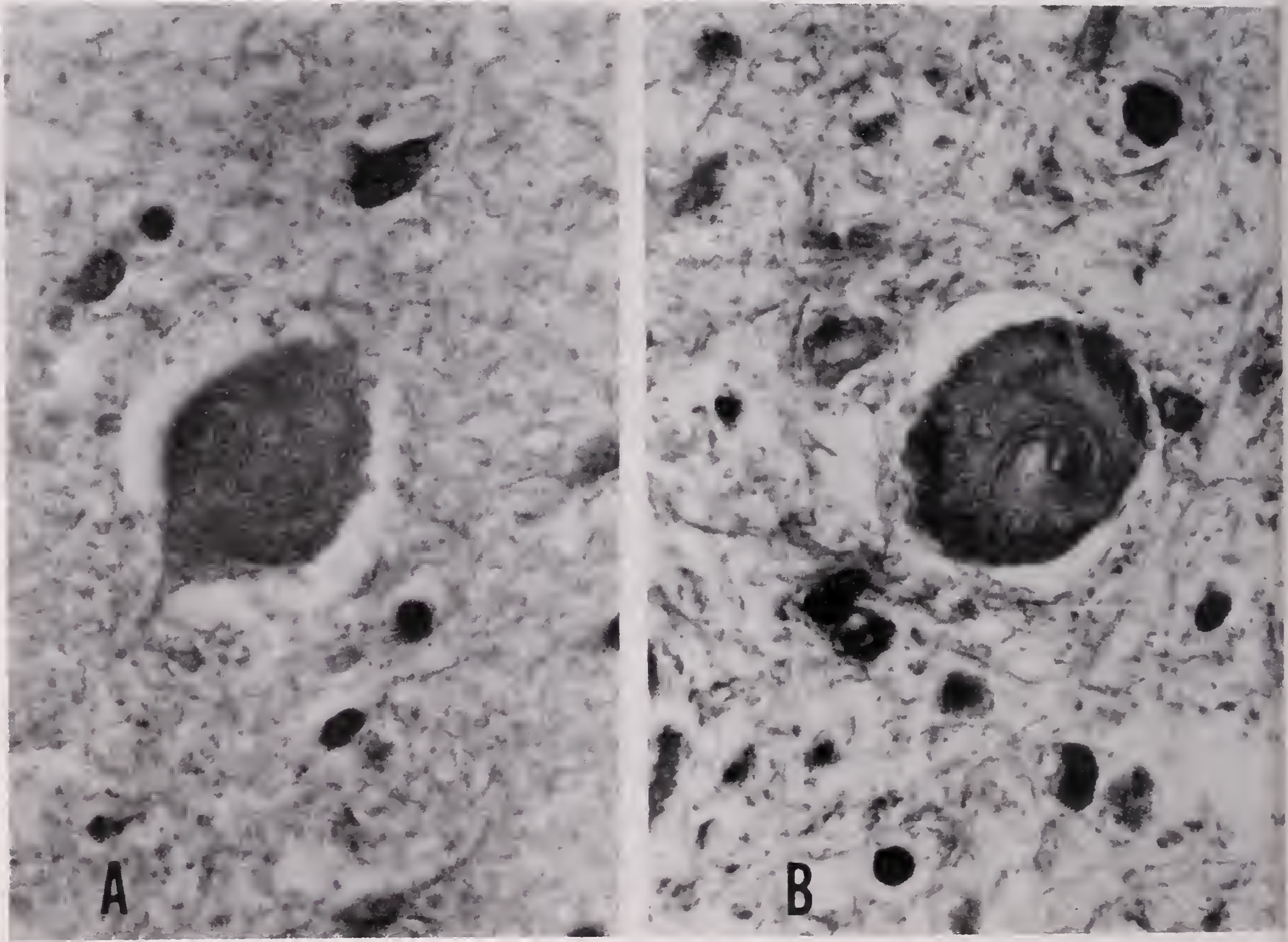

Fig. 1 Neurofibrillary degeneration. (A) Neuron of medial globus pallidus whose cytoplasm is distended by a skein of neurofibrillary strands that displaces the nucleus eccentrically (oil, 1,000 ×, hematoxylin and eosin stain); (B) neuromelanin of neuron from the substantia nigra pushed peripherally by cytoplasmic neurofibrillary tangle (oil, 1,000 ×, hematoxylin and eosin stain).

elderly individuals and causes death within four to seven years of onset. The early history of repeated serious falls in this patient is a common symptom in PSP and is attributable to a combination of bradykinesia and impairment of downward gaze that predisposes to stumbling over unnoticed objects. Though the uniformly present sign of volitional gaze paralysis, especially the vertically directed, was never confirmed by a physician, the wife said that the patient needed to bend his body in order to look downward. Progressive muscular dystonia with bradykinesia is typically seen. Early unilateral signs have been reported previously[2] and obviously can mimic the hemiplegia of stroke as seen in this case.

Of course, the physician carelessly overlooked the fact that the "hemiplegia" had shifted from the right to the left side over the years. The patient's progressive bilateral limb hypertonicity and bradykinesia prompted his physician to treat him for parkinsonism, the most common mistaken diagnosis for this syndrome.[2] Like others with PSP, however, the patient responded favorably to antiparkinsonian pharmacotherapy. The patient's extensor nuchal rigidity, which was mistaken for meningismus, is a common sign. Dysarthria progressing to anarthria is also a common sign. In this case, the speech difficulty was mistakenly interpreted as expressive aphasia progressing to global aphasia as a result of repeated strokes. The patient's most worrisome preterminal problem was his "spastic" dysphagia with chronic aspiration. This is a characteristic finding in PSP and, as in this case, the most common cause of death. Five of the seven autopsied patients originally described by Steele *et al* died from respiratory infection or suffocation. Recently, this most lethal aspect of the syndrome has been treated successfully by cricopharyngeal myotomy.[4]

The etiology of PSP is still undetermined. There is no racial, ethnic, familial or geographic predisposition.[3] Men are affected more than women.[3] While histological findings are similar to those seen in postencephalitic parkinsonism, Alzheimer's dementia and parkinsonian-dementia complex of Guam, their distribution is different[1, 3] and ultrastructural analysis reveals straight as opposed to twisted neurofibrils.[5] Animal inoculation experiments using fresh postmortem brains from such patients have failed to reveal an infectious agent.[3] Toxic etiology is an intriguing possibility. For example, aluminum has been employed experimentally to produce similar neurofibrillary degeneration in animals.[6] Furthermore, aluminum accumulation in neuron-rich gray matter of brain has been incriminated in the dialysis encephalopathy syndrome in humans.[7]

Although no cure is yet in sight for PSP, recognition of this syndrome can insure effective medical and surgical management as discussed above. Moreover, the diagnosis of PSP can be made at autopsy without prior clinical establishment. A thereupon carefully reviewed historical account can render a characteristic clinical course that may have been unrecognized during life.

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The 11th Annual Professional Meeting of the Missouri Chapter of the American College of Surgeons will be held on June 9-10 at the Breckenridge Pavilion Hotel in St. Louis. Guest speakers will be Oliver H. Beahrs, M.D., F.A.C.S. and Sen. Thomas F. Eagleton.

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# President's Message

## Threats

In this land of the free and home of the brave, about all that are really left after all the threats from the Feds are the brave. Seems that every state, except maybe Georgia, is threatened by the Feds every day. "Uncle" says do this by our guidelines or "we" will stop your highway funds or education funds or any other funds "they" can think of. Yes, this is the land of the free. If only the Feds could just produce two things—(1) Goodwill, (2) Intelligence—and confine their threats to bacteria and virus.

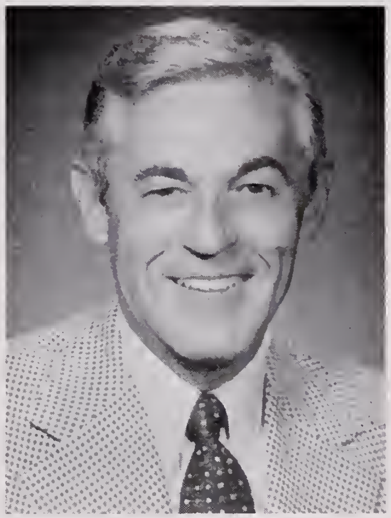
## MMPAC

**Your PAC Committee will not threaten, but we will beg for your dollars. Quote George Orwell, "In our age, there is no such thing as 'keeping out of politics.' All issues are political issues, and politics itself is a mass of lies, evasions, folly, hatred and schizophrenia."**

I wonder how many whiplashes there are compared to pot-holes in the streets?

*By the way, thanks for the honor of serving as your MSMA President.*

Our congratulations to the new St. Louis Metropolitan Medical Society. Now, I won't have to keep asking is he . . . city or county?



John N. Martin, M.D.

**MSMA are letters all physicians in Missouri recognize, but some new letters I suggest you get to know are MOMEDICO. Its purpose is to serve you and that's a rare thing in these days. Look MOMEDICO over. Read about it and ask questions. Some of the answers will interest you.**

This is the first of 11 of these pages, and I'm sure you all will be waiting in great anticipation for the next one. But, I hope we all will really anticipate a great year for the MSMA which we can have by cooperation, consideration and the sharing of ideas by all our members.

For this year, remember Peter Marshall's Quote: *"Lord, when we are wrong, make us willing to change. And when we are right, make us easy to live with."*

# MSMA Auxiliary

## Meet Us in St. Louis!

**The American Medical Association and the AMA Auxiliary are coming to Missouri . . . the first time since 1939!**

June 17-21 will be days rich in rewarding experiences for MSMA members, Auxiliary members and their families who take advantage of the close proximity of St. Louis to attend the annual conventions there.

Mrs. A. J. Campbell
President

We invite every physician's spouse to join our MSMA Auxiliary members in a historic moment by attending the AMA Auxiliary's 55th annual convention events at Stouffer's Riverfront Towers. This meeting will be a homecoming for the 80,000-member Auxiliary because it was in St. Louis that this organization was formed and held its first meeting 56 years ago.

The national auxiliary's accomplishments this past year will be reviewed by 1977-1978 President Mrs. Chester L. Young, and goals for the upcoming year will be previewed by 1978-1979 President Mrs. Manuel A. Bergnes when she delivers her inaugural address. Both of these distinguished women have been guests at our own annual conventions.

We are particularly proud of the four members of our MSMA Auxiliary who are being recognized and honored on the national level. *Mrs. William M. Walker,* Springfield, has been nominated for reelection as North Central Regional Vice-President of the AMA Auxiliary. *Mrs. George P. Wilson,* Columbia, serves as Regional Chairman of the national Health Projects Committee. *Mrs. William R. McPhee,* Kansas City, has been appointed to the AMAA Bylaws Committee. *Mrs. Richard Sutter,* St. Louis, a Past-President of the AMA Auxiliary, continues as an associate editor of *Facets,* an AMAA publication.

A host of exciting events has been scheduled, including Auxiliary House of Delegates meetings, a slide presentation depicting 56 years of Auxiliary history, educational sessions, notable speakers and exciting social activities.

Remember that all MSMA members and their spouses and Auxiliary members are cordially invited to attend Missouri's Annual Dutch Treat Breakfast which is scheduled for 7 AM on Monday, June 19 at Stouffer's Riverfront Inn. Please make your reservations by contacting Mrs. Rudy Ruhling, 6 Webster Knolls, Webster Groves 63119.

Your children will enjoy special youth activities that include an all-day tour of the city on Monday; a trip to Six Flags Over Mid-America Amusement Park on Tuesday; and a visit to relics from the city's frontier days, the zoo, the Planetarium and the Gateway Arch.

Meet us in St. Louis for these important conventions and this opportunity to show our guests from the other states the true meaning of Missouri hospitality.

# EDITORIALS

## A TRIBUTE TO DR. JOSEPH V. FINNEGAN

For the past 17 years, Missouri Medicine has been fortunate to have had the wise counsel and guiding hand of Joseph V. Finnegan as Editor. He has worked diligently to make this Journal a vital part of the Missouri State Medical Association and a dependable medical informational source for its members.

Dr. Finnegan is a graduate of the St. Louis University School of Medicine and is in the private practice of internal medicine in St. Louis. A teacher, he has given instruction to medical students at St. Louis University since 1948. He became Associate Professor of Clinical Medicine in 1956. He has served as Vice-Chairman of the Cancer Control Committee; Director of Admissions Clinic and General Medical Clinic, Department of Internal Medicine; and as Director of the Student Health Department at St. Louis University.

Dr. Finnegan has stated that if he were asked about pride in his medical achievement, that next to the editorship of Missouri Medicine, he would say that it was being the one physician who diagnosed the first case of Legionnaire's Disease to be recognized in Missouri.

Dr. Finnegan

It was Dr. Finnegan's personal request that he be relieved of the assignment as Editor.

Following is the resolution in his honor which was voted unanimously by the House of Delegates at the 120th Annual Session of the MSMA on April 16 in Kansas City:

## RESOLUTION

Whereas, Joseph V. Finnegan, M.D., has served this Association and the medical profession with honor and distinction as Editor of Missouri Medicine since January, 1962; and

Whereas, he has given generously of his time and knowledge for almost 17 years in guiding the Association's Journal and maintaining its status of high quality and excellence; and

Whereas, through his interest and good judgement, he has provided a reliable and respected forum for the voluntary reporting and publication of the scientific research and medical experiences of so many other dedicated Missouri physicians; and

Whereas, Dr. Finnegan now deems it necessary to devote his efforts to other responsibilities; therefore be it

*Resolved,* that the House of Delegates of the Missouri State Medical Association at this 120th Annual Session in Kansas City formally expresses its appreciation to Dr. Joseph V. Finnegan for his dedicated and unselfish service; and be it further

*Resolved,* that the House extends to him the best wishes of the members of this Association for health and good fortune in the years to come.

*(Official Seal)*

*(Signed)* **HOWARD J. McALHANY, M.D.**
**President, Missouri State**
**Medical Association**

## A MESSAGE FROM DR. FINNEGAN

I wish to take the opportunity in this issue of Missouri Medicine to accomplish several things. First, you will soon appreciate the editorial expertise of our new editor, Dr. Wooldridge, who has an enviable record as a medical author on a national level. From my position as editor, he has given much skillful (and gentle) help as a member of both the Editorial Board and the Publications Committee. My loss is that geography and other professional commitments prevented a more personal relationship.

Briefly, but forcibly, I need to acknowledge the help given by the loyal Publications Committee and the many who served on the Editorial Board during my tenure. I am grateful to the MSMA presidents, Council members and executive secretaries who had faith in trusting I could perform the job as editor.

I must mention my family and especially my long-suffering wife who tolerated the (at times) unseemly and ungentlemanly expressions issuing from the family living room, which served as my paper-strewn "editorial office."

I have left to last my most important acknowledgment of debt and recognition of the skillful performance of the managing editors of my time: Miss Helen Penn, Mr. Allan D. Smith and our present managing editor, Miss Jean Duensing. With good reason, I have always referred to them as our "real editors."

**JOSEPH V. FINNEGAN, M.D., St. Louis**
**Editor, 1962-1978**

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# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

**University of Missouri-Kansas City School of Medicine —Kansas City Southwest Clinical Society**
**Continuing Medical Education**
**2220 Holmes St., Kansas City 64108**
**(816) 471-3876**
***Contact:* Alta Bingham**

| | |
|---|---|
| **May 19-20** | The Long Weekend—Cardiovascular Disease I and II |
| **June 1-2** | Symposium on Physical Fitness |
| **June 16-17** | Symposium: The Right to Live/The Right to Die |

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**University of Missouri-Columbia**
**M-175 Medical Center, Columbia 65201**
**(314) 882-2256**
***Contact:* William Bradshaw, M.D., Director**

| | |
|---|---|
| **May 31-June 1** | Fifth International Symposium on Intestinal Microecology |
| **June 15-17** | Sports Medicine Symposium |
| **Aug. 10-11** | Workshop in Soft Tissue Surgery<br>(Co-Sponsor—The American Academy of Facial Plastic and Reconstructive Surgery) |

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**The Edward Mallinckrodt Institute of Radiology— Washington University School of Medicine**
**510 S. Kingshighway, St. Louis 63110**
**(314) 454-2291**
***Contact:* Ronald G. Evens, M.D.**

| | |
|---|---|
| **May 25-26** | Fifth International Symposium on Intestinal Microecology |
| **Aug. 10-11** | Workshop in Soft Tissue Surgery<br>(Contact J. Regan Thomas, M.D., Section of Otolaryngology) |

**Ed Bixby Institute for Postgraduate Education**
**Research Medical Center**
**2316 E. Meyer Blvd., Kansas City 64132**
**(816) 276-4167**

| | |
|---|---|
| **June 2** | Drug Actions and Interactions |
| **Aug. 2** | Anxiety, Depression and Psychosexual Problems |

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**St. Luke's Hospital**
**Foundation for Medical Education and Research**
**Wornall Rd. at 44th, Kansas City 64111**
**(816) 932-2047**
***Contact:* Robert Newman, M.D., Program Director**

| | |
|---|---|
| **Aug. 3-5** | Seminar: Understanding and Treating the Adolescent Female<br>(Vail, Colorado) |

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**Washington University School of Medicine**
**Continuing Medical Education**
**Box 8063, 660 S. Euclid Ave., St. Louis 63110**
**(314) 367-9673**
***Contact:* Loretta Giacoletto**

| | |
|---|---|
| **May 19-20** | Neuromuscular Diseases |
| **Nov. 10-12** | Fifth Annual Symposium—Anesthesia and the Geriatric Patient |

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**Greene County Medical Society**
**223 Professional Bldg., Springfield 65806**
**(417) 869-2531**
***Contact:* James E. Thompson, Jr., Executive Director**

| | |
|---|---|
| **Sept. 29** | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

***Give now to your student loan fund!***
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P.O. Box 1028, Jefferson City, Missouri 65102

# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D., ST. JOSEPH

### Buchanan County Medical Society

Dr. Harvey Thalblum, radiologist from Kansas City, presented the annual "Cancer" program of the Buchanan County Medical Society. His topic was "Computerized Tomography in the Diagnosis of Cancer."

An annual event in April, which is Cancer Control Month, the program was sponsored by the Buchanan County Unit of the American Cancer Society.

Fifty-five physicians attended the program because of unusual interest in the topic and scanners. This attendance was larger than the average.

Dr. R. Philip Acuff introduced the speaker. Dr. Edmund W. Kline, President, presided at the meeting.

R. Philip Acuff, M.D., *Secretary*

## SECOND DISTRICT

COUNCILOR
JOHN W. WALTERSCHEID, M.D.,
HANNIBAL

### Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on April 13 in the Library Conference Room at Woodland Hospital in Moberly.

Those in attendance were Drs. F. A. Barnett, Paris; J. E. Campbell and D. S. Shin, Macon; P. V. Dreyer, Huntsville; and E. S. Lin, H. T. Lin, W. D. Chute, J. Will Fleming, Jr., Tom Fleming, L. E. Huber and G. R. Hudson, Moberly.

Dr. Michael C. Perry, assistant professor of medicine at the University of Missouri-Columbia Medical Center, was the speaker for the evening. He discussed in detail the incidence of cancer of the breast and emphasized the necessity for early diagnosis. He also discussed the newer methods of evaluating and predicting the probable response of breast malignancy to chemotherapy and various types of drugs used in this treatment.

After a brief question-and-answer period, the meeting was adjourned.

G. R. Hudson, M.D., *Secretary*

BRIEF SUMMARY OF
PRESCRIBING INFORMATION

**ANTIMINTH®** (pyrantel pamoate)
**ORAL SUSPENSION**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 $\mu$g/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

More detailed professional information available on request.

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New York, New York 10017

**When you're good people recognize you.**

Highly effective
Single-dose convenience
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Pleasant tasting

**Antiminth®**
**(pyrantel pamoate)**
equivalent to 50 mg pyrantel/ml
ORAL SUSPENSION

a drug of choice in pinworm infections

Please see brief summary of prescribing information on facing page.

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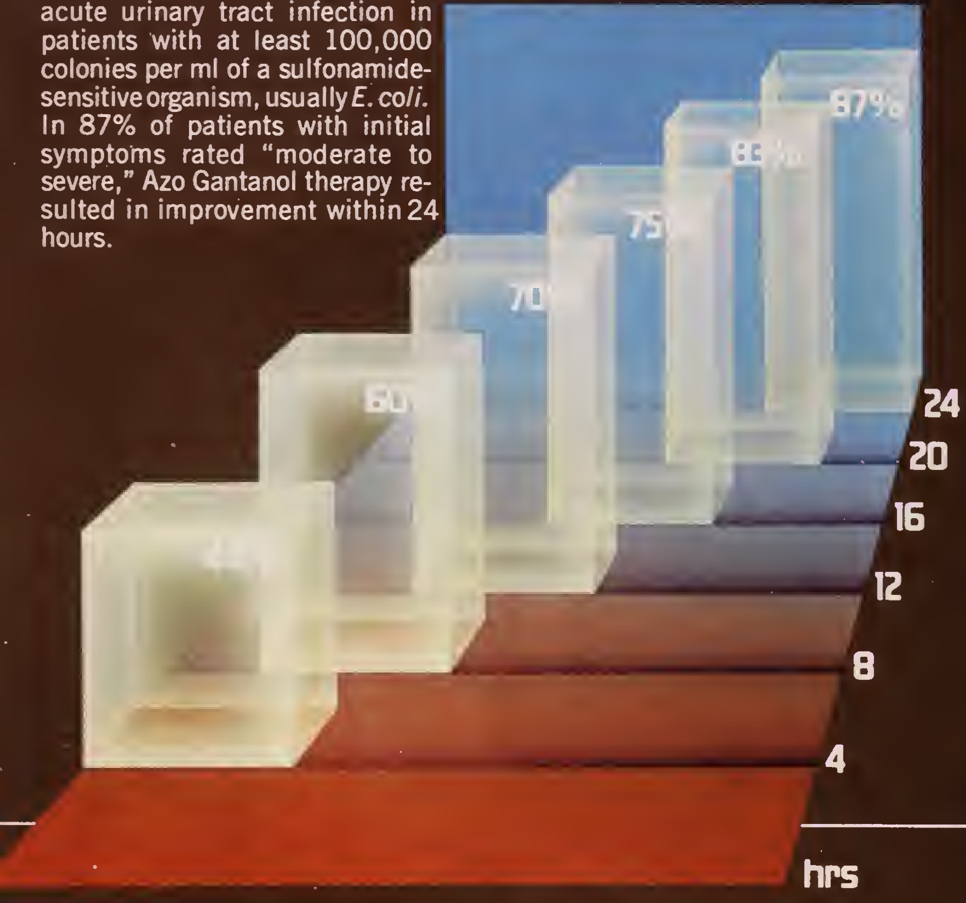
Important data on the pain of acute cystitis:

In 87% of patients studied [303 of 349], Azo Gantanol® reduced pain and/or burning within 24 hours*

A controlled, multicenter study assessed the efficacy of Azo Gantanol in relieving pain and/or burning associated with acute urinary tract infection in patients with at least 100,000 colonies per ml of a sulfonamide-sensitive organism, usually *E. coli*. In 87% of patients with initial symptoms rated "moderate to severe," Azo Gantanol therapy resulted in improvement within 24 hours.



Fast pain relief plus effective antibacterial action

Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for
the pain

for
the pathogens

*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.

**Before prescribing, please consult complete p**
**uct information, a summary of which follows:**
**Indications:** In adults, urinary tract infections
complicated by pain (primarily pyelonephritis,
pyelitis and cystitis) due to susceptible organi
(usually *E. coli*, *Klebsiella-Aerobacter*, *Staph*
*coccus aureus*, *Proteus mirabilis*, and, less fr
quently, *Proteus vulgaris*) in the absence of
obstructive uropathy or foreign bodies. **Note:**
**fully coordinate** *in vitro* **sulfonamide sensitivi**
**tests with bacteriologic and clinical response;**
**aminobenzoic acid to follow-up culture media**
**increasing frequency of resistant organisms li**
**the usefulness of antibacterials including sul-**
**fonamides.** Measure sulfonamide blood levels
variations may occur; 20 mg/100 ml should b
maximum total level.
**Contraindications:** Children below age 12; sul
fonamide hypersensitivity; pregnancy at term
during nursing period; because Azo Gantanol
tains phenazopyridine hydrochloride it is cont
dicated in glomerulonephritis, severe hepatiti
uremia, and pyelonephritis of pregnancy with
disturbances.
**Warnings:** Safety during pregnancy not establ
Deaths from hypersensitivity reactions, agran
tosis, aplastic anemia and other blood dyscra
have been reported and early clinical signs (s
throat, fever, pallor, purpura or jaundice) may
dicate serious blood disorders. Frequent CBC
urinalysis with microscopic examination are r
ommended during sulfonamide therapy.
**Precautions:** Use cautiously in patients with i
paired renal or hepatic function, severe aller
bronchial asthma; in glucose-6-phosphate
dehydrogenase-deficient individuals in whom
dose-related hemolysis may occur. Maintain
adequate fluid intake to prevent crystalluria a
stone formation.
**Adverse Reactions:** *Blood dyscrasias* (agran-
ulocytosis, aplastic anemia, thrombocytopeni
leukopenia, hemolytic anemia, purpura, hyp
thrombinemia and methemoglobinemia); *alle*
*reactions* (erythema multiforme, skin eruptio
Stevens-Johnson syndrome, epidermal necro
urticaria, serum sickness, pruritus, exfoliativ
dermatitis, anaphylactoid reactions, periorbi
edema, conjunctival and scleral injection, ph
sensitization, arthralgia and allergic myocardi
*G.I. reactions* (nausea, emesis, abdominal pa
hepatitis, diarrhea, anorexia, pancreatitis and
stomatitis); *CNS reactions* (headache, periph
neuritis, mental depression, convulsions, ata
hallucinations, tinnitus, vertigo and insomnia
*miscellaneous reactions* (drug fever, chills, to
nephrosis with oliguria and anuria, periarterit
nodosa and L. E. phenomenon). Due to certa
chemical similarities with some goitrogens, d
uretics (acetazolamide, thiazides) and oral hy
glycemic agents, sulfonamides have caused r
instances of goiter production, diuresis and h
glycemia. Cross-sensitivity with these agents
exist.
**Dosage:** Azo Gantanol is intended for the acu
painful phase of urinary tract infections. *Usu*
*adult dosage:* 2 Gm (4 tabs) initially, then 1
(2 tabs) B.I.D. for up to 3 days. If pain persis
causes other than infection should be sought.
After relief of pain has been obtained, contin
treatment with Gantanol (sulfamethoxazole)
be considered.
*NOTE:* Patients should be told that the oran
dye (phenazopyridine HCl) will color the urin
**Supplied:** Tablets, red, film-coated, each con
ing 0.5 Gm sulfamethoxazole and 100 mg
phenazopyridine HCl—bottles of 100 and 50

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Nutley, New Jersey 07110

# New Members

**Alexander Arsenovic**, M.D., Kansas City Medical Center, 917 McGee, Kansas City 64106, has become a member of Jackson County Medical Society. Dr. Arsenovic is a native of Belgrade, received his preliminary education at the University of Beograd and his M.D. degree from the University of Beograd in 1953. He specializes in internal medicine.

**Steven R. Byars**, M.D., 6724 Troost, Suite 202, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Byars is a native of Beatrice, Neb., received his preliminary education at the University of Nebraska and his M.D. degree from the University of Nebraska in 1968. He specializes in ophthalmology.

**Terry L. Calhoun**, M.D., 5414 N. Highland, Kansas City 64118, has become a member of Clay County Medical Society. Dr. Calhoun is a native of Paducah, Ky., received his preliminary education at the University of Kentucky and his M.D. degree at the University of Louisville in 1975. He specializes in internal medicine.

**Charles Ellenbogen**, M.D., University of Missouri School of Medicine, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Ellenbogen is a native of Winston-Salem, N. C., received his preliminary education at the University of Chicago and his M.D. degree at the University of Chicago in 1964. He specializes in infectious diseases.

**Benjamin Goldstein**, M.D., 2428 Woodson Rd., St. Louis 63114, has become a member of St. Louis Medical Society. Dr. Goldstein is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1964. He specializes in internal medicine.

**Ching Bor Huang**, M.D., Children's Mercy Hospital, 24th at Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Huang is a native of Taiwan. He received his M.D. degree at the Taipei Medical College in 1971. He specializes in anesthesiology.

**Mark F. Johnson**, M.D., 660 S. Euclid, St. Louis 63110, has become a member of the St. Louis Medical Society. Dr. Johnson is a native of Red Wing, Minn., received his preliminary education at Harvard University and his M.D. degree from Harvard University in 1972. He specializes in ophthalmology.

**Samuel Krain**, M.D., 141 N. Meramec, St. Louis 63105, has become a member of St. Louis Medical Society. Dr. Krain is a native of Philadelphia, Pa., received his preliminary education at Temple University and his M.D. degree at Jefferson Medical College in 1961. He specializes in radiology.

**Alan P. Kretchmar**, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Kretchmar is a native of Chicago, Ill., received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1974. He specializes in ophthalmology.

**Joseph W. Mathey**, M.D., McPheeters Clinic, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Mathey received his M.D. degree from the University of Missouri in 1974. He specializes in family practice.

**Julian C. Mosley, Jr.**, M.D., 3737 N. Kingshighway, St. Louis 63115, has become a member of St. Louis Medical Society. Dr. Mosley is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at Washington University in 1972. He specializes in surgery.

**Chennaiah Chinna Nadindle**, M.D., Junction Pleasant & 54 East, Farber 63345, has become a member of Audrain County Medical Society. Dr. Nadindle is a native of India, received his preliminary education at Z.P.H.S. School and his M.D. degree from Kurnool Medical College in 1970. He specializes in general practice.

**John P. Olmstead**, D.O., 2025 Swift, North Kansas City 64116, has become a member of Clay County Medical Society. Dr. Olmstead is a native of Montreal, Canada, received his preliminary education at the University of Vermont and his D.O. degree at Kansas City College of Osteopathic Medicine in 1976. He specializes in occupational medicine.

**William W. Pingleton**, M.D., 410 Professional Bldg., N., 2700 Hospital Dr., Kansas City, 64116, has become a member of Clay County Medical Society. Dr. Pingleton is a native of Poteau, Okla., received his preliminary education at Northeastern State College and his M.D. degree at the University of Oklahoma in 1967. He specializes in pulmonary medicine.

**Carl Nelson Ringer,** M.D., 2022 Allen Dr., Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Ringer is a native of Ironton, received his preliminary education at the University of Missouri and his M.D. degree at the University of Tennessee in 1970. He specializes in ophthalmology.

**Raymond G. Slavin,** M.D., 1402 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Slavin is a native of Cleveland, Ohio, received his preliminary education at the University of Michigan and his M.D. degree at St. Louis University in 1956. He specializes in internal medicine.

**Romanito A. Tadeo,** M.D., Spelman Memorial Hospital, Smithville 64089, has become a member of Clay County Medical Society. Dr. Tadeo is a native of the Philippines, received his preliminary education at the University of the East and his M.D. degree at Far Eastern University in 1961. He specializes in anesthesiology.

**Hiroaki Takahashi,** M.D., The Children's Mercy Hospital, 24th at Gillham, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Takahashi is a native of Tokyo, Japan, received his preliminary education at the University of Chiba and his M.D. degree from the University of Chiba in 1967. He specializes in pediatric endocrinology.

**Ibrahim S. Umar,** M.D., 1515 Lafayette Ave., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Umar is a native of India, received his preliminary education at Sarvajanik College of Science and his M.D. degree from the University of Jammu and Kashmir School in 1970. He specializes in pediatrics.

**John D. Valentine,** M.D., Menorah Medical Center, 4949 Rockhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Valentine is a native of Wellington, Kan., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1976. He specializes in emergency medicine.

**Graham A. Vance,** M.D., Box O-36, Lanton Rt., West Plains 65775, has become a member of South Central County Medical Society. Dr. Vance is a native of Bristol, Tenn., received his preliminary education at Louisiana State University and his M.D. degree from the University of Virginia in 1944. He specializes in internal medicine.

**Brief Summary of Prescribing Information**
**Combined TEGOPEN®** (cloxacillin sodium)
**Capsules and Oral Solution**
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

**Indications:** Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**Important Note:** When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**Contraindications:** A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**Warning:** Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**Precautions:** The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**Adverse Reactions:** Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**Usual Dosage:** Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.:* INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

**Supplied:** Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100. Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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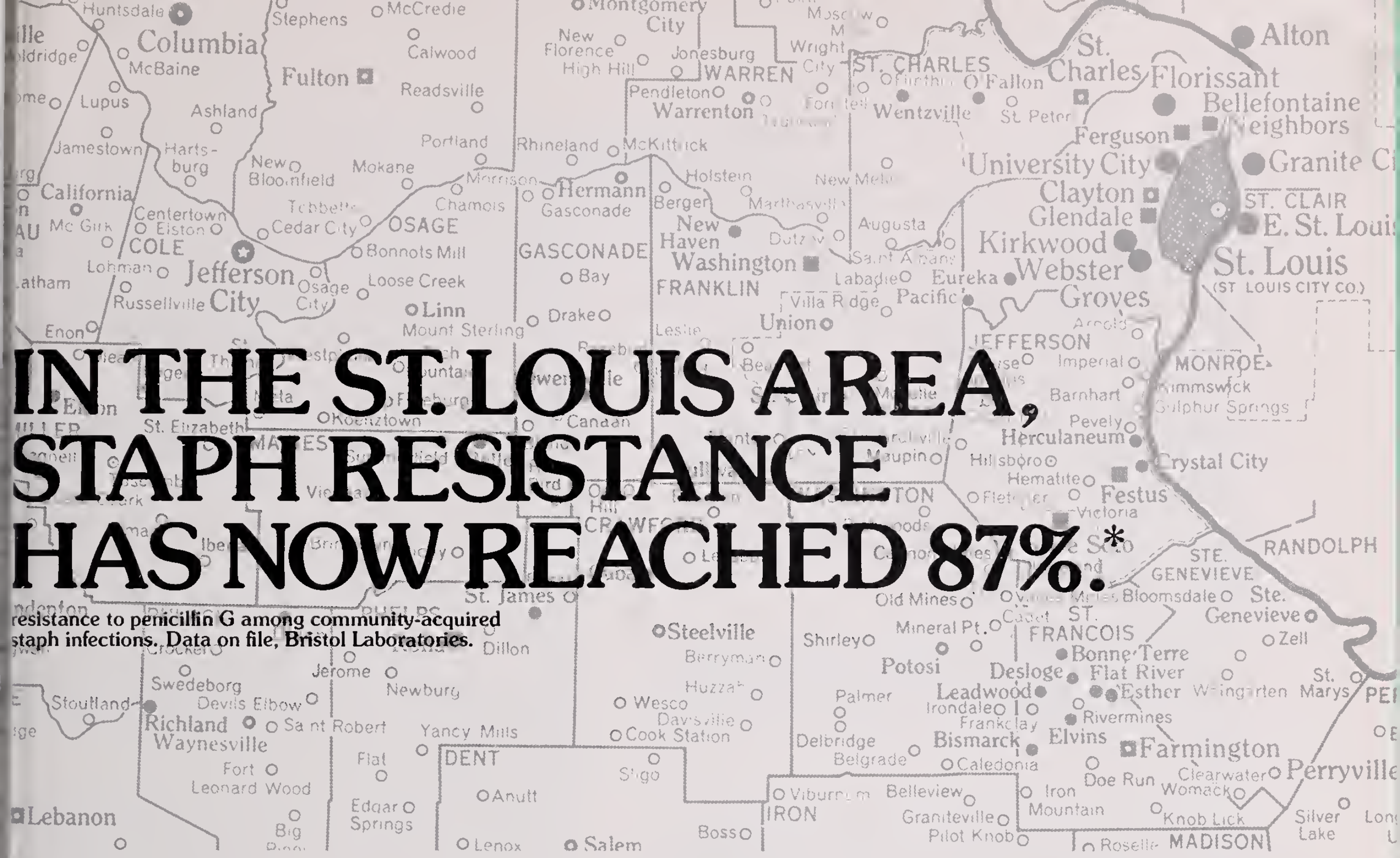
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# In Memoriam

**Thomas J. Toon,** D.O., 10093 W. Florissant, St. Louis 63136; a graduate of Kansas City College of Osteopathy and Surgery, 1941; member of St. Louis County Medical Society; age 74; died March 31, 1978.

**Erich Fischer,** M.D., 7448 Ahern Ave., St. Louis 63130; a graduate of State Universities of Breslau and Munich, 1926; member of St. Louis Medical Society; age 77; died April 2, 1978.

**William H. Allen,** M.D., 805 W. Cherry, Nevada 64772; a graduate of the University of Arkansas, 1940; member of West Central Missouri Medical Society; age 65; died April 11, 1978.

**Hugh M. Wilson,** M.D., 200 Log Cabin La., St. Louis 63124; a graduate of Washington University, 1927; member of St. Louis Medical Society; age 76; died April 21, 1978.

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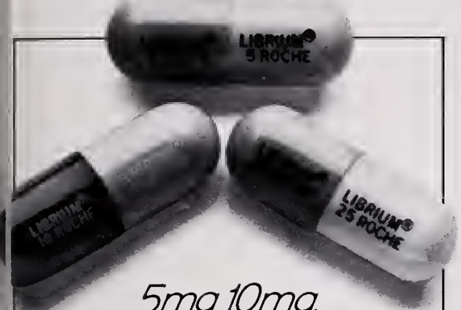

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**Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

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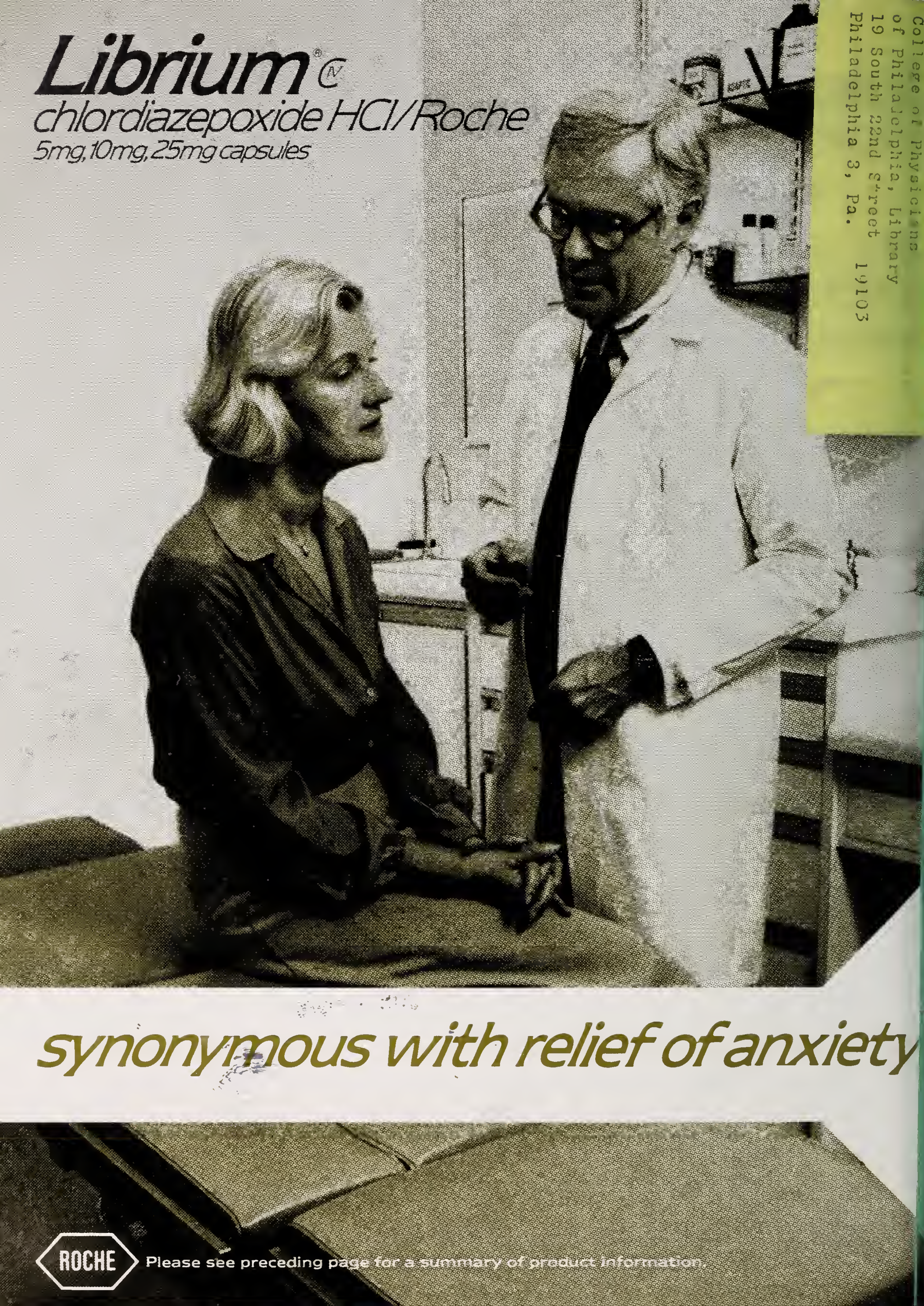

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**JUNE, 1978**

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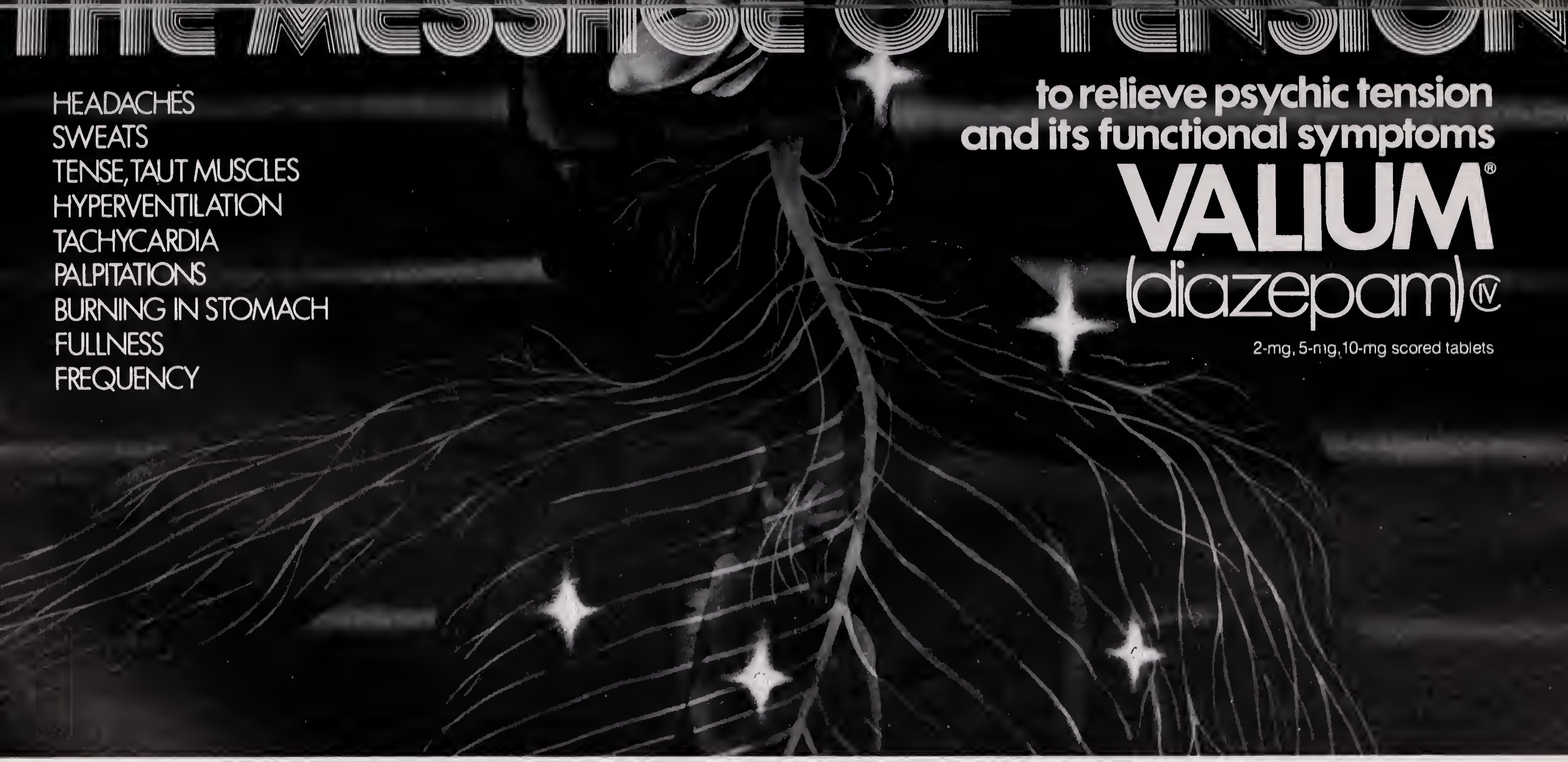

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**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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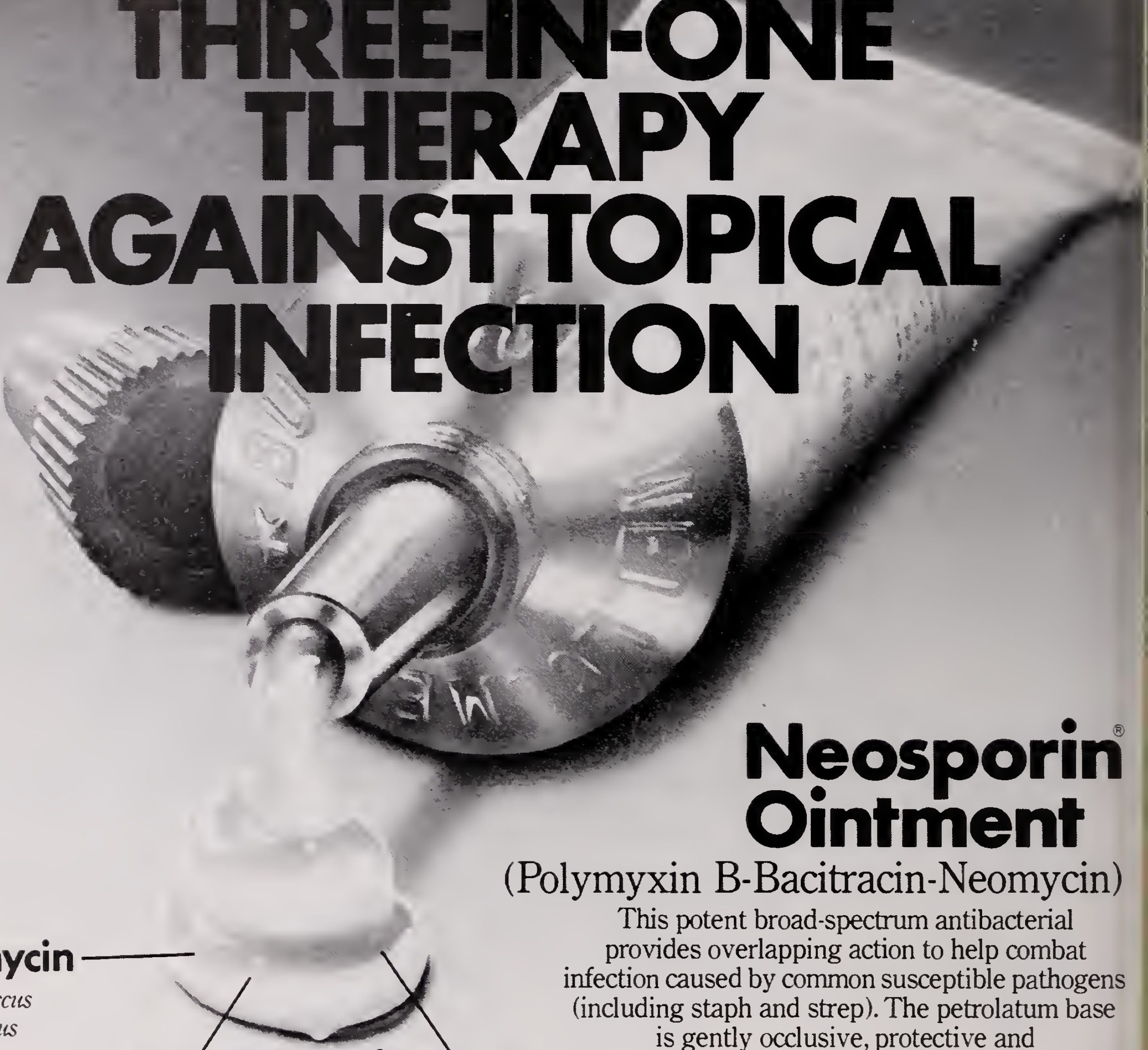

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Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

MSMA
MISSOURI STATE MEDICAL ASSOCIATION

# NEWS ROUND - UP

June, 1978

# Council requests unused Medicaid funds

During its June 3 meeting at the Lake of the Ozarks, the MSMA Council acted on a report of the Socioeconomic Committee by requesting the Division of Family Services to pay what the Council believes to be more than $2 million in unexpended funds which were budgeted for physician services.

If the Division fails to comply with the request, the Council has instructed the MSMA to seek a writ of mandamus which would force the Division of Family Services to perform.

The Council also agreed that the Socioeconomic Committee should set up a series of seminars to instruct Missouri medical leaders, both state and local, on the essentials of an action organization. These will be scheduled sometime in the fall.

A report from the MSMA Planning Committee was accepted by the Council for information and further study. The report calls for weighted voting by Councilors to represent the total MSMA members in their District. No change in the present makeup of Councilor Districts was recommended.

The report also recommended that the MSMA continue to elect delegates to the AMA on an "at-large" basis since these delegates represent all Missouri physicians.

In addition, the Planning Committee feels that the MSMA House of Delegates should decide if it wants to be a "federation" or a "democratic body" before further changes in its organization are considered.

Because it is felt that some nurse practitioners in Missouri may be attempting to practice medicine, the Council adopted the following resolution: "Resolved that the MSMA reaffirms its position that only graduates of medical schools accredited by the AMA or the AOA or graduates of recognized foreign medical schools who have passed the ECFMG exam should be eligible for licensure by the State Board of Registration for the Healing Arts to practice medicine in Missouri."

The Council heard the results of the public opinion survey conducted by Civic Service Inc. They voted to proceed immediately with the implementation of a public relations program through the MSMA staff and a special Ad Hoc Committee consisting of the MSMA President, President-Elect and the chairman of the Public Affairs Commission.

In other actions, the Council:

- Approved accreditation of the following hospitals to sponsor continuing medical education programs: Christian Hospital Northeast-Northwest, St. Louis (2 years); St. Joseph Hospital, Kirkwood (2 years); St. Mary's Health Center, St. Louis (3 years); St. Joseph Hospital, St. Charles (2 years); and Faith Hospital, St. Louis (2 years).
- Heard a report on MOMEDICO, stating that 100 policies have been written so far on 227 physicians. Dr. Irving Clark, president of MOMEDICO, said that the new insurance company is running well ahead of the projected figures.
- Voted to name a committee to make a study of all the insurance programs that MSMA offers to its members and recommend any changes which should be made.
- Heard a report from the MSMA Auxiliary. The Council voted to assist the Auxiliary in its solicitation of new members.
- Heard a report from the Committee on Legislative Affairs. The Council voted to commend Dr. John I. Matthews and the MSMA staff for their diligent work during the 1978 session of the Missouri General Assembly.
- Recommended that the Ad Hoc Committee of the MSMA, the Missouri Association of Osteopathic Physicians and Surgeons, and the Board of Healing Arts not be re-instituted at this time. It was felt that the present liaison is sufficient and the Ad Hoc Committee would only be a duplication of effort.
- The Council was reminded that the Annual Convention of the AMA will be held June 17-21 in St. Louis and that all MSMA members are encouraged to attend.
- Referred the matter of HMOs and IPAs (Individual Practice Association) to the Commission on Medical Economics for further study.
- Approved actions of the Missouri Cost Effectiveness Committee (see separate story).
- Agreed to a project suggested by the Ad Hoc Committee on Political Affairs that will recruit one or two physicians and Auxiliary members to serve as Legislative Contacts to each member of the Missouri General Assembly.

## Socioeconomic Committee sets up review mechanism

The Ad Hoc Socioeconomic Committee of the MSMA met on June 2 in conjunction with the Council. Members of this committee are Drs. Eugene T. Hansbrough, Poplar Bluff, chairman; Irving H. Clark, Kansas City; James M. Stokes, St. Louis; Howard J. McAlhany, Springfield; Stanley S. Peterson, Springfield; and John N. Martin, St. Joseph.

At the meeting, the committee members decided that a request should be made to the Division of Family Services to pay physicians the remainder of the money which had been appropriated under Medicaid. The Council approved this resolution and a letter has been sent to the Division.

**Continued on Page 4**

# Follow your leaders — Join MMPAC!

**"Do what I say, not what I do" is an axiom which definitely does NOT apply to the leaders of organized medicine in Missouri.**

Each MSMA member is solicited several times a year to become a contributor to the Missouri Medical Political Action Committee and the American Medical Political Action Committee. A physician can be a PAC member by paying $25 annually. However, due to the increased needs for PAC dollars, members are encouraged to become Sustaining Members, which costs $100 a year.

To date, the majority of MSMA's Officers, Councilors, AMA Delegates and Alternates, Auxiliary leaders, and members of the MMPAC Board, have paid their $100 to become Sustaining Members. As a result, MMPAC will receive a plaque during ceremonies at the AMA's Annual Convention this month in St. Louis. Obviously, medicine's leadership is doing its part in this vitally important area!

Several other interested MSMA members and Auxiliary members have paid their $100 to push MMPAC's Sustaining Member list to a record high of 63. The names of all Sustaining Members as of June 13, 1978, are listed on this page.

Now, look at the "record" number of Sustainers. Since MSMA has a membership in excess of 5,100, less than 1 per cent of our physicians are concerned enough with the political system of our country to contribute $100 in an effort to insure medical input into medical issues.

Perhaps even more distressing is the fact that only 1,087 MSMA members and Auxiliary are willing to pay the $25 to join MMPAC/AMPAC. Just one-of-five (or 20 per cent) of Missouri's physicians apparently feel that physicians should have some "say" with the Representatives and Senators who design and implement the laws which govern our profession. That is a sad, sad commentary!!

**This is an Election Year and NOW is the time that a well-funded MMPAC/AMPAC can have the most impact on those members of Congress and the Missouri General Assembly who will be voting on issues which will greatly affect you, your patients and the way you practice medicine . . . what could be more important?**

In Missouri alone this summer and fall, voters will be deciding on 10 U.S. Representatives, 163 State Representatives and 17 State Senators.

MMPAC/AMPAC are voluntary non-profit unincorporated committees of individual physicians and others and are NOT affiliated with any political party. MMPAC/AMPAC, were designed to determine which candidates for office are friends of medicine and help get those candidates elected. It sounds simple, but it is impossible if the funds are not available!

**Your $100 Sustaining Membership, $40 Family Membership or $25 Regular Membership is sorely needed if MMPAC is to be able to support candidates who will listen to medicine's point of view . . . maybe not always agree, but at least listen.**

The medical leadership in Missouri is not asking the MSMA membership to "do what I say;" they are asking each individual physician to "join us, we have shown how important we know MMPAC/AMPAC to be. But we need the financial assistance of the other 4,000 members to carry on effectively."

Please . . . clip the coupon on the following page . . . write a personal check . . . and mail it to MMPAC, P.O. Box 2357, Jefferson City, MO 65102.

**(Copies of MMPAC and AMPAC reports are filed with the Federal Election Commission and are available for purchase from the Federal Election Commission, Washington, D.C. If your practice is incorporated, MMPAC and AMPAC voluntary political contributions should be written on a PERSONAL CHECK. Contributions are not limited to the suggested amount. Neither the MSMA nor the AMA will favor or disadvantage anyone based upon the amounts of or failure to make PAC contributions.)**

## 1978 MMPAC SUSTAINING MEMBERS

Joe L. Spears, M.D.
*Cabool*

E. T. Hansbrough, M.D.
*Poplar Bluff*

Hubert A. Ritter, M.D.
*St. Louis*

Max S. Franklin, M.D.
*St. Louis*

Mrs. Max S. Franklin
*St. Louis*

John H. Walterscheid, M.D.
*Hannibal*

John N. Martin, M.D.
*St. Joseph*

Mrs. John N. Martin
*St. Joseph*

Richard C. Hedges, M.D.
*North Kansas City*

Claude W. Cooper, M.D.
*Thayer*

Richard V. Bradley, M.D.
*St. Louis*

Marvin Singleton, M.D.
*Joplin*

Mrs. F. T. H'Doubler
*Springfield*

Gerard Callaghan, M.D.
*St. Louis*

R. John Torontow, M.D.
*Nevada*

Mrs. James A. Reid
*Marshall*

Richard P. Bowles, M.D.
*Liberty*

Melvin C. Kasten, M.D.
*Cape Girardeau*

Mrs. Melvin Kasten
*Cape Girardeau*

Mrs. Ann Ritter
*Cape Girardeau*

Mrs. W. Jack Stelmach
*Kansas City*

James C. Sisk, M.D.
*St. Louis*

R. W. Froelich, M.D.
*Lebanon*

Louis P. Hetlage, M.D.
*Troy*

Mrs. Hubert Ritter
*St. Louis*

Robert A. Slickman, M.D.
*Kansas City*

Mrs. Robert A. Slickman
*Kansas City*

Howard J. McAlhany, M.D.
*Springfield*

Mrs. Howard J. McAlhany
*Springfield*

Mrs. Keith D. Jones
*Warrensburg*

Walter A. German, M.D.
*Springfield*

John I. Matthews, M.D.
*Jefferson City*

Edwin K. Burford, M.D.
*Cape Girardeau*

H. Peter Ekern, M.D.
*Mexico*

Gary Dyer, M.D.
*St. Joseph*

Hugh E. Stephenson, Jr., M.D.
*Columbia*

Donald A. Fakhoury, M.D.
*Kansas City*

Andrew McCanse, M.D.
*Kansas City*

Mrs. A. J. Campbell
*Sedalia*

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*Warrensburg*

George E. Thoma, M.D.
*St. Louis*

Mrs. Charles Cozean
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Mrs. J. H. Walterscheid
*Hannibal*

Burnell Landers, M.D.
*Independence*

Kenneth K. Siu, M.D.
*Jefferson City*

Mrs. Ruby Ruhling
*St. Louis*

Mrs. Lee Vensel
*Springfield*

Byron Stuart, M.D.
*Boonville*

Mrs. Kenneth Siu
*Jefferson City*

James Stokes, M.D.
*St. Louis*

Mrs. A. Anne Erickson
*Sedalia*

Charles Ash, M.D.
*Springfield*

Stanley Peterson, M.D.
*Springfield*

Robert Littlejohn, M.D.
*North Kansas City*

Truman B. Schertz, M.D.
*North Kansas City*

Mrs. William Walker
*Springfield*

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*Columbia*

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*Kansas City*

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| Sustaining Single | $100 | ( ) |
| Family (Husband and Wife) | $ 40 | ( ) |
| Active | $ 25 | ( ) |

(Dues include Membership in AMPAC)

## Missouri Cost Effectiveness Committee adopts six guidelines

Representatives of the Missouri State Medical Association met with members of the Missouri Hospital Association, the Missouri Association of Osteopathic Physicians and Surgeons and the public in late May to set into motion the Missouri Voluntary Cost Effectiveness Program.

This was the first meeting of the State Cost Effectiveness Committee, which consists of 21 members. From the MSMA are Drs. G. Comer Bates, North Kansas City; Francis M. Corry, Springfield; Thomas J. Cooper, St. Louis; Michael R. Soper, Kansas City; and Richard V. Bradley, St. Louis. Representing the MAOPS are Drs. John L. Hart, Holts Summit, and Freeman Claxton, Jefferson City. The committee also contains seven members from the MHA and seven from the public, including State Senator Harry Wiggins and State Representative Judith O'Connor.

The purpose of this committee, says Dr. Bradley, a cochairman, is to help physicians and hospitals voluntarily reduce the rate of increase in health care expenditures. Four implementation committees have been established to develop data reporting systems for hospitals and physicians participating in the voluntary effort.

At the meeting, the committee adopted six guidelines. They are as follows:

1) Agree in principle with the 15 actions taken by the National Steering Committee on December 20, 1977.

2) Approve in concept a reduction in the rate of increase of expenditures for health care; support voluntary efforts to reduce community hospital expenditures in 1978 and 1979, toward the goal of a four-percentage-point reduction in the rate of increase from the rate experienced in 1977.

3) Support the national goal of no net increase in the total number of acute hospital beds in 1978, after adjustment for local health needs.

4) Recommend to the implementation committees that they encourage hospitals to contribute as much as possible toward a reduction in new capital investment commitments in 1978 to no more than 80 percent of the price adjusted average during 1975 through 1977.

5) Request the implementation committees to develop appropriate data reporting systems for hospitals and physicians, in cooperation with MHA, MSMA and MAOPS, and to submit data semiannually to the SCEC.

6) Request MHA, MSMA and MAOPS to develop educational programs for hospitals, physicians and patients, and to report their progress to the SCEC semiannually.

## Dr. Martin protests Carter's attack

John N. Martin, M.D., President of the MSMA, sent a formal letter of protest to President Carter following his remarks of May 5, 1978. The President accused physicians of being the "major obstacle to the progress in our country to having a better health care system in years gone by."

Dr. Martin responded quickly, "The physicians of Missouri received your recent comments concerning the medical profession with sincere dismay."

The letter stated that the bulk of the blame for the increase in health care costs is due to governmental activities, citing governmental regulations, Medicare and Medicaid, and the spiraling number of government employees in the health care field as examples.

Another cause is the surge in the U.S. inflation rate brought about primarily by increased labor costs. Although the medical profession must pass these higher expenses along to patients like anyone else, physicians have differed from most segments of the economy in that they have also improved quality and quantity of care.

"The medical profession has done its job admirably in the past and, with less governmental interference, we will continue to improve," stated Dr. Martin.

In addition, letters were sent from Dr. Martin to Senators John C. Danforth and Thomas F. Eagleton concerning Certificate-of-Need legislation.

CON legislation has failed to pass in the Missouri General Assembly for the fourth consecutive year, because it was felt the measure removed too much local autonomy in health planning.

Dr. Martin urged the senators to endorse the amendment to S2410 which would allow the states to continue to choose whether or not to include physicians' offices in CON legislation.

## AMA sues HEW

On June 2, 1978, the AMA filed suit in federal court in Chicago against the HEW Secretary, seeking to restrain HEW from publicly disclosing the names of physicians and amounts of payments they received from Medicare.

The complaint contends that the proposed disclosure of such information by Secretary Califano constitutes an abuse of discretion and violates the Privacy Act of 1974 and other applicable statutes and regulations.

The AMA suit, a class action being filed for all physicians, asks for a temporary restraining order to be followed by a permanent injunction.

## Socioeconomic Committee

Continued

The Socioeconomic Committee also set up a review mechanism to attempt to resolve differences between physicians and third parties. When a physician feels he has been aggrieved against, he can refer the problem to the committee and it will be reviewed on three levels.

The first level consists of designated staff with expertise in socioeconomic areas. If the matter cannot be resolved by staff, the second level, consisting of two physician members of the socioeconomic committee, will attempt to handle it. The third level includes the entire committee and legal counsel.

Before the committee can negotiate with a third party for a member, that member must designate the MSMA as his/her bargaining agent. So far, approximately 1,100 members have signed limited power of attorney proxies.

The proxies are continuing to come into the MSMA headquarters. However, the more members who sign the power of attorney the better position the Association has in negotiations.

Another mailing urging participation in the program will be sent in the fall.

## Answers on CME

Some questions have been raised by MSMA members regarding the Continuing Medical Education Program.

The Association's CME program has two facets. The first facet is the accreditation program. The objective of this process is to identify and document programs of continuing medical education in Missouri which satisfy the ESSENTIALS OF APPROVED PROGRAMS IN CONTINUING MEDICAL EDUCATION as defined by the Liaison Council on CME.

The second facet is a recording mechanism which allows the physician to forward his CME activities to the MSMA office and to receive a cumulative printout of those activities semiannually.

Once a physician has acquired the necessary 150 hours, with at least 60 hours in Category 1, the application for the Physician's Recognition Award will be processed by the MSMA office. This mechanism will record physician's activities obtained in Categories 1-5.

Members of the MSMA will not be charged a fee for this program. However, for nonmembers wishing to use this service, there will be a fee on a cost basis. These physicians will be notified of the specific cost at the time they have qualified for the Physician's Recognition Award.

The recording tool which has been developed to minimize the time required to record CME activities is a green card. A question commonly asked about the green cards concerns the M.E. Number. The M.E. Number refers to a physician's medical education number. It is an 11-digit number which appears immediately above the name of the physician on his membership card. If this card has been misplaced, the physician should leave the space blank and it will be recorded in the MSMA office.

A supply of the green cards may be obtained from the Missouri State Medical Association and will soon be available through each component medical society.

All accredited institutions have been forwarding attendance records to the MSMA office. Therefore, in order to prevent duplication, a physician who is on the staff of an accredited institution should record only those activities obtained outside of that institution.

For specific questions concerning the CME program, please contact Ron Ellison at the MSMA headquarters, (314) 636-5151.

## Government grants offered to study health care

If anyone has any doubt as to where government is going with medicine, those doubts may be laid to rest with a look at the April 13, 1978, *Federal Register*. In it HCFA (Health Care Financing Administration) relates how it intends to spend six million dollars of its budget.

The money will be spent on "Health financing, research and demonstration grants." Anyone is eligible to apply for the grants. To apply, one need only draft a proposal and submit it with the application.

The decision as to which projects are funded is based to a large degree on "whether the project addresses an area of declared interest, and the relevance of the anticipated results to HCFA programs or general issues involving HCFA programs."

The "declared interests" of HCFA are listed in 17 priority areas, with examples of issues which will be at the forefront of HEW programs for the next two years.

HCFA wants to study, for example, the extent of private health insurance coverage for various ancillary services and providers such as physician extenders, the types of Medicaid and Medicare beneficiaries who receive ineffective or unnecessary services, the extent to which patients rely on the physician's judgment about medical care utilizations, and physician participation in state Medicaid programs.

The duration of the grants is one year so we all should be reading about these projects in 1980.

## Division of Health requests completion of Item 25

**A review of medical certifications by the Missouri Division of Health indicates that physicians are not completing Item 25 on the 1978 death record format. This item, "If Hospital or Institution, Indicate DOA, OP, or In Patient," is important in determining the patient status in relation to the hospital.**

**Failure to complete Item 25 results in excessive expenditure of time on the part of the Bureau of Vital Records and also the busy physician, since this item must be queried, said Charles Bell, Director of the Bureau.**

## CHAMPUS has new contractor

Beginning July 1, 1978, Wisconsin Physicians' Service will process all claims for professional and institutional care received by CHAMPUS beneficiaries in Missouri.

Wisconsin Physicians' Service was selected on the basis of competitive bidding, according to Defense Department officials.

Affected beneficiaries should begin submitting claims to the new contractors after June 30, even for care received before that date. Professional claims from Missouri should be sent to: Wisconsin Physicians' Service, P.O. Box 7939, Madison, WI 53707. Institutional claims should be sent to: Wisconsin Physicians' Service, P.O. Box 7923, Madison, WI 53707. Inquiries should be addressed to: Wisconsin Physicians' Service, P.O. Box 7927, Madison, WI 53707.

## Practice workshop a success

*The MSMA sponsored an "Establishing Yourself in Medical Practice Workshop" May 11 and 12 in St. Louis. Conducted by Conomikes Associates, Inc., the program was attended by 14 physicians preparing to enter private practice.*

*The participants felt the course was a very valuable experience and the MSMA is considering making the workshop an annual event.*

Time is the test of all things.

1954
1978

BRIEF SUMMARY

**Indications**: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

**Contraindications**: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

**Precautions:** Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

**Adverse Reactions:** Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

**Overdosage:** Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications". Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

**Kaon® Elixir**
(potassium gluconate)
20 mEq per 15 ml

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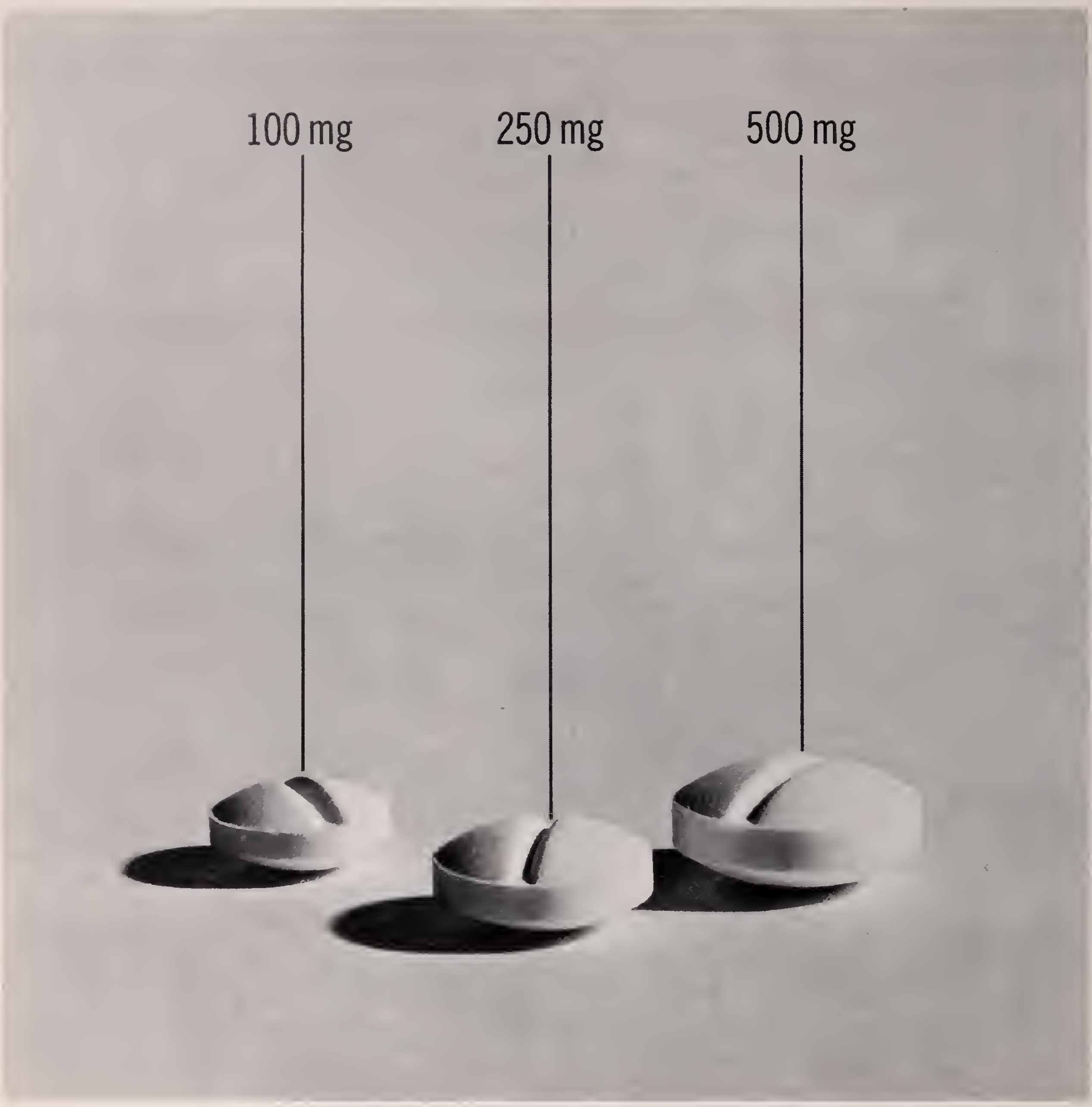
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# Editor's Corner

## A STATEMENT OF POLICY

There are a few issues involving complex human beings which are clearly all right or all wrong. The vagaries of human nature usually mess them up somewhere along the line. Then they become controversial. This controversy offers the best opportunity for an editorial.

Only a little of what I contribute to future issues of Missouri Medicine will be simply informative. Much more, what I write will express my point of view. My point of view may not be the same as yours. Sometimes, I don't even agree with myself.

If some of you read what I write and disagree with me, it would be appreciated if you would make it known. I would enjoy it, perhaps even a little more, if you write to tell me that you share my point of view. Reader input should be encouraged in a state medical journal. The personal response should increase readability. Our family is small enough for us to know each other. You must keep in mind that there is no guarantee to publish every letter to the editor (if we receive any), but some will be published and you should remember that possibility. We must exercise some control over number and quality. However, we wish this to be your journal, not ours. For myself, I would like the simple job of being Missouri Medicine traffic cop, pointing directions and trying to get the mainstream headed that way.

However, I may be wrong. If I am, that's what makes it interesting.

**Wilfred E. Wooldridge, M.D.**

*Special Feature*

# Abstracts From the Annual Meeting of the Missouri Chapter, American College of Surgeons

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Missouri Medicine *is pleased to publish this final group of abstracts of papers presented at the 1977 Annual Meeting of the Missouri Chapter of the American College of Surgeons. Boyd E. Terry, M.D., served as Chairman of the Program Committee for this meeting.*—The Editor

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## Necrotizing Fasciitis

CURT VOGEL, M.D., COLUMBIA

Reviews of five cases of necrotizing faciitis are presented in this report. The bacteriologic studies were variable with both gram positive cocci and gram negative rods recorded. The initiating injury varied from no injury to massive peritonitis with laparotomy. Location of infection was variable with the abdomen, flank and extremity being involved. Three of the five patients died. The hallmark of accurate diagnosis is visualization of undermining necrotic fascia. Adequate initial treatment required vigorous and repeated wide debridement in addition to systemic and topical broad spectrum antibiotic therapy.

* * *

## Surgical Treatment of Dissecting Aneurysm of Thoracic Aorta

SUCHINT WATHANACHAROEN, M.D., F.A.C.S.,
WILLIAM A. REED, M.D., F.A.C.S., JOHN CROUCH, M.D.
AND DUNCAN A. KILLEN, M.D., F.A.C.S.,
KANSAS CITY

From November, 1971 to January, 1977, we operated on 21 patients with dissecting aneurysm of thoracic aorta. Operations included resection aneurysm and aortic graft in 18 patients, fenestration in one patient, re-entry in one patient and repair in one patient. Fourteen patients had acute dissection. All patients who were alive were followed up to January, 1977. There were five operative deaths; three of the patients had resection of aneurysm and graft and two were late deaths. All five operative deaths had acute dissection. There were eight patients with Type I dissection, eight patients with Type II and five patients with Type III. The majority of pathologic findings were cystic medial degeneration. Anatomic classification, details of different types of operative technique and comparison of this result to experiences, both surgical and medical therapy, at other centers are discussed.

* * *

## Control of Hemorrhage From Pelvic Fracture

JOHN WEBB, M.D. AND STAN WELLS, M.D.,
KANSAS CITY

Massive hemorrhage from pelvic fracture can be a life-threatening emergency. Until recently, this was attributed to venous bleeding. With angiography, arterial bleeding can be diagnosed and treated. A brief review of recent literature and a case report of pelvic hemorrhage treated by controlled embolus are presented.

* * *

## Brain Abscess

WILLIAM Q. WU, M.D., F.A.C.S., COLUMBIA

Brain abscess is basically a curable disease. However, its symptoms often mimic a space occupying lesion. In the absence of fever and meningeal irritation, the diagnosis is often missed during a period when treatment is favorable. Rupturing of the abscess into the ventricules, subtentorial herniation of the temporal lobe and development of a cerebellar cone are the factors which cause death. In spite of antibiotics and improved neurosurgical technique, mortality rate is still high from brain abscess.

The primary causes of brain abscess may be divided into the following three categories: (1) infections within the skull from cranial sinuses which spread to the brain. Almost one third of all abscesses are associated with frontal or mastoid infections; (2) extracranial infections which produces septic thrombi from bronchiectosis and lung abscess. In children, brain abscess is secondary to cyanotic heart disease, especially tetralogy of Fallot and intraventricular defects; (3) trauma which results in intracranial infection from a missile wound and compound depressed fractures of the skull with laceration of the meninges and cortex. These injuries carry contaminated hair, scalp and bone fragments to set up foci of infection within the brain.

Several representative cases are presented with a few slide illustrations.

* * *

## Facial Fractures

J. REGAN THOMAS, M.D. AND
JERRY W. TEMPLER, M.D., F.A.C.S., COLUMBIA

*Dr. Thomas is in the private practice of otorhinolaryngology.*
*Dr. Templer is from the Department of Surgery,*
*University of Missouri Medical Center*

A five-year survey is made of the facial fractures treated on both a university service and in a private otolaryngology practice. The fractures are categorized and their statistical incidence surveyed. An organized and systematic approach toward diagnosis and treatment is outlined.

* * *

## Effect of Measured Rates of Growth of Primary and Metastatic Breast Cancers on Detection and Treatment

JOHN S. SPRATT, JR., M.D., F.A.C.S., LOUISVILLE, KY.

*From the University of Louisville*
*Health Science Center*

The purpose of this paper is to summarize observations on the actual doubling times for human mammary cancers growing primarily in the breast and as metastases in lung, lymph nodes and skin. The author has collected these data from various sources and has analyzed them in a manner intended to give a better appreciation of the problems associated with early detection, natural history and the evaluation of treatment.

The base data of this report were recently published and should be consulted for more detail.[1] The data document that the normal behavior of breast cancer can range from an exceedingly acute to a very indolent chronic disease based totally on variations in growth rate.

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* * *

## Therapeutic Goals in the Management of Carcinoma of the Esophagus

HUGH E. STEPHENSON, JR., M.D., F.A.C.S. AND
SUZANNE ALLEN, COLUMBIA

*From the Department of Surgery,*
*University of Missouri Medical Center*
*Ms. Allen is a medical student*

Based on more than a 20-year experience with more than 100 cases of carcinoma of the esophagus managed at one institution, this report defines the options and alternatives necessary to cope with the changing pattern of therapy evolving in the management of this formidable malignancy. As a rather infrequently encountered lesion, few surgeons have a great deal of experience with carcinoma of the esophagus and the broad spectrum of problems it presents. Occasionally, confusion, disagreement and uncertainty as to management are the product of this inexperience; they often represent an unrealistic appraisal of the therapeutic goal in any individual instance. The time for a revised appraisal of the problem is overdue.

* * *

## Perinephric Abscess—Yesterday and Today?

JOSEPH E. MONTIE, M.D., F.A.C.S., GRANT SCHMIDT,
M.D., A. PHIL DEPAUW, M.D., IAN M. THOMPSON,
M.D., F.A.C.S.* AND GILBERT ROSS, JR., M.D.,
F.A.C.S., COLUMBIA

*From the Section of Urology,*
*University of Missouri-Columbia School of Medicine*

The records of patients with perinephric abscess are reviewed and the etiology, clinical course, morbidity and mortality compared with previously reported series. Despite advances in diagnostic and therapeutic modalities, the clinical picture and results are remarkably similar to those of years past. The reasons for this are discussed and proper indices of suspicion of the condition are outlined.

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*Special Article*

# On Death

By

**PAUL A. BYRNE, M.D.,** ***St. Louis****

Historically, the accepted way of declaring that death has occurred has been the pronouncement by the physician that the patient has died. This pronouncement involves the judgement of the physician who recognizes an absence of respiration, an absence of heart rate and circulation and an absence of central nervous system reflexes, such as a loss of pupillary response and a loss of corneal reflex. When this set of circumstances has existed for a sufficient period of time, which is ordinarily accepted to be about 15 minutes, the patient is pronounced dead. In modern times however, the advent of mechanical ventilators and organ transplantation has resulted in new situations.

Recent publications have indicated that there is a concept of brain death which indicates death of the person.[1–4] Brain death has been defined as "a term commonly used to describe a condition in which the brain is completely destroyed and in which cessation of function of all other organs is imminent and inevitable." At first glance, this seems to be a very acceptable definition. However, even at the time of death, the brain ordinarily is not completely destroyed, even though it is not alive.

A more acceptable definition of death of a human being is the dissolution of the organizational and functioning unity of a unique individual. This dissolution may occur at any stage of development. Furthermore, this dissolution is accomplished through the process of dying. The exact time of completeness is not known and one can only be certain of death after the process has been completed.

## Human Beings, in Life and Death

It can generally be stated that death is an absence of life. Concepts of life are often developed in relation to an adult person who, in other words, is a living adult human being. The adult human being is a unique individual who has structure, form, organization and functioning unity. The adult human being has a number of readily identified organs, namely, the brain, heart, lungs, kidneys and liver, to list only the more vital organs. Organs, such as those for reproduction, most certainly contribute to the person, but they are not ordinarily considered to be vital. All of these organs require nutrition and the appropriate environment in order to stay alive, and together they function with an interdependent unity. When this interdependent functioning unity exists, this unique adult individual is alive and is able to eat, sleep, walk, speak, write, reproduce, make things, think, perceive, respond, regulate, integrate and is aware of himself or herself and his or her surroundings. It is understandable that the definition of death, i.e., dissolution of the organizational and functioning unity of the unique individual, does revolve greatly around the brain and, thus, is responsible for the current concepts of brain death being involved in the determination of death of the person.

Infants also are living human beings and, like the adult, an infant does have structure, form, organization and functioning unity. An infant has a number of organs that function together. These organs do require nutrition and an appropriate environment in order to have an interdependent functioning unity. The infant's activities are different from the adult's activities, in that an infant does eat, sleep, and, perhaps, crawl, but cannot speak, write or reproduce. We don't really know how an infant thinks or exactly what is perceived and we only have some inklings as to integration of thoughts. We are capable of recognizing that the infant does respond to certain stimuli and it seems that he is becoming aware of himself and his surroundings. One can see that the definition of death of an infant in terms of a dissolution of the organizational and functioning unity of this unique individual may also revolve around the brain. However, the brain in relation to an adult brain does not carry the same perspective.

The fetus, too, is a living unique individual who does have structure, form, organization and functioning unity. The fetus also has a number of organs that must function together. The placenta is the organ of nutrition, excretion and respiration, while the uterus is the appropriate environment for the fetus. This results in an interdependent functioning unity. The activities of the fetus are different from the activities of the adult human being, as well as those of the infant. The fetus has swimming movements and responds to light and sound. However, we really don't know much about fetal awareness of self or surroundings. It must be emphasized that the fetus is alive and, certainly, human.

---

* Dr. Byrne is Director, Neonatal Intensive Care Unit, Cardinal Glennon Memorial Hospital and Associate Clinical Professor of Pediatrics, St. Louis University School of Medicine.

The zygote also must be considered. The zygote is unique and does have structure, form, organization and functioning unity. At the time of conception, new deoxyribonucleic acid (DNA), which is different from the DNA in the cells of the mother or the DNA in the cells of the father, is organized as chromosomes. When there is only one cell, organs such as brain, heart, and lungs are not able to be identified as such but actually are present in a "programmed" form. The zygote requires nutrition and the appropriate environment in order to survive. The zygote has functioning unity and is, biochemically, a specific unique human being, as evidenced by the DNA. One can see that the definition of death in terms of the dissolution of the organizational and functioning unity of this unique individual can be applied to the zygote, as well as to the fetus, the infant and the adult.

While it is necessary for life to have an interdependent functioning unity, the ultimate effect of this interdependent functioning unity is at the cellular level. Likewise, the process of dying ultimately has its effect at the cellular level. For example, at the cellular level, there is a shift of glycogen metabolism from a predominately aerobic form to a predominately anaerobic form. The anaerobic form of metabolism results in increased production of lactic acid and pyruvic acid which are measurable. At this time, the cells still are alive and not dead. At this end of the life spectrum, an absolute biochemical test indicating death is not available. This is in contrast to the biochemical evidence of a new life that exists at the time of conception. Thus, until there is an absolute test indicating death, the body must be considered alive. At the same time, there is the distinct possibility that the human being is alive, even though dying, and should be treated as such.

## Difficulties

The proponents of the concepts of brain death point out a distinction between cerebral death and irreversible coma.[6] However, the origin-of-brain-death concepts is dependent upon the publication of the Harvard criteria[7] in 1968, which were and are criteria for irreversible coma.

The criteria basically include the following four points:

1. Unreceptivity and unresponsivity
2. No movements or breathing
3. No reflexes
4. Flat EEG

Since the Harvard criteria, there have been at least five other published criteria,[8, 9] which do have variations regarding what is included in the criteria and for what duration the criteria must exist. All of these require unresponsivity, no breathing or movement, absence of brain stem reflexes and no CNS depressant drugs. Three require that the exact cause of the brain damage be known, two shorten the observation from 24 hours to 12 hours, two shorten the observation period to six hours, two require some test of cerebral blood flow and one does not use the EEG.[10]

It must be recognized that there are generally accepted exclusions from the criteria, namely, children under 14 years of age,[5] persons under the influence of drugs, hypothermia, uremia, or hepatic failure and when the etiology of the present status is unknown.[7, 10, 11] If one thinks about these exclusions from the criteria, it becomes apparent that the exclusions are necessary because the criteria are based upon the concepts of altered brain function. The true concept of brain death does not have the same kinds of exclusions. Brain death is death of the brain. There are no exclusions nor exceptions, regardless of age or condition.

## Summary

The instant of death for a particular person is not known. It is possible, however, for a physician to pronounce a person dead after he has, in fact, died. The person has died when the body is no longer a living unit, the evidence for which is the absence of vital functions, namely, cessation of respiration, of circulation and of total brain function.

While it is possible to place relative values on each and any of the vital organs, in terms of their respective contribution to the well being and life of the whole organism (the person), no one organ, no matter how important it may be deemed to be, is the person. There was a time in history when the heart was considered to be the "most important" organ of the body. Presently, it is advocated by some that the brain is the "most important," while actually a person is a composite of many organs, all

*(Continued on page 258)*

of which contribute to the life of the individual.

Death occurs when there is the dissolution of the organizational and functioning unity of the individual whose uniqueness can be biochemically traced to the unique composition of the DNA (deoxyribonucleic acid), which is constituted and received at the time of conception. The process by which death is attained is termed "dying." Since the instant that the dying process is completed is not known, and since a person is more than one organ, it is not appropriate to define death simply as an irreversible cessation of total brain function. To define a person's death in terms of brain death is to ignore the intrinsic composition of a human person.

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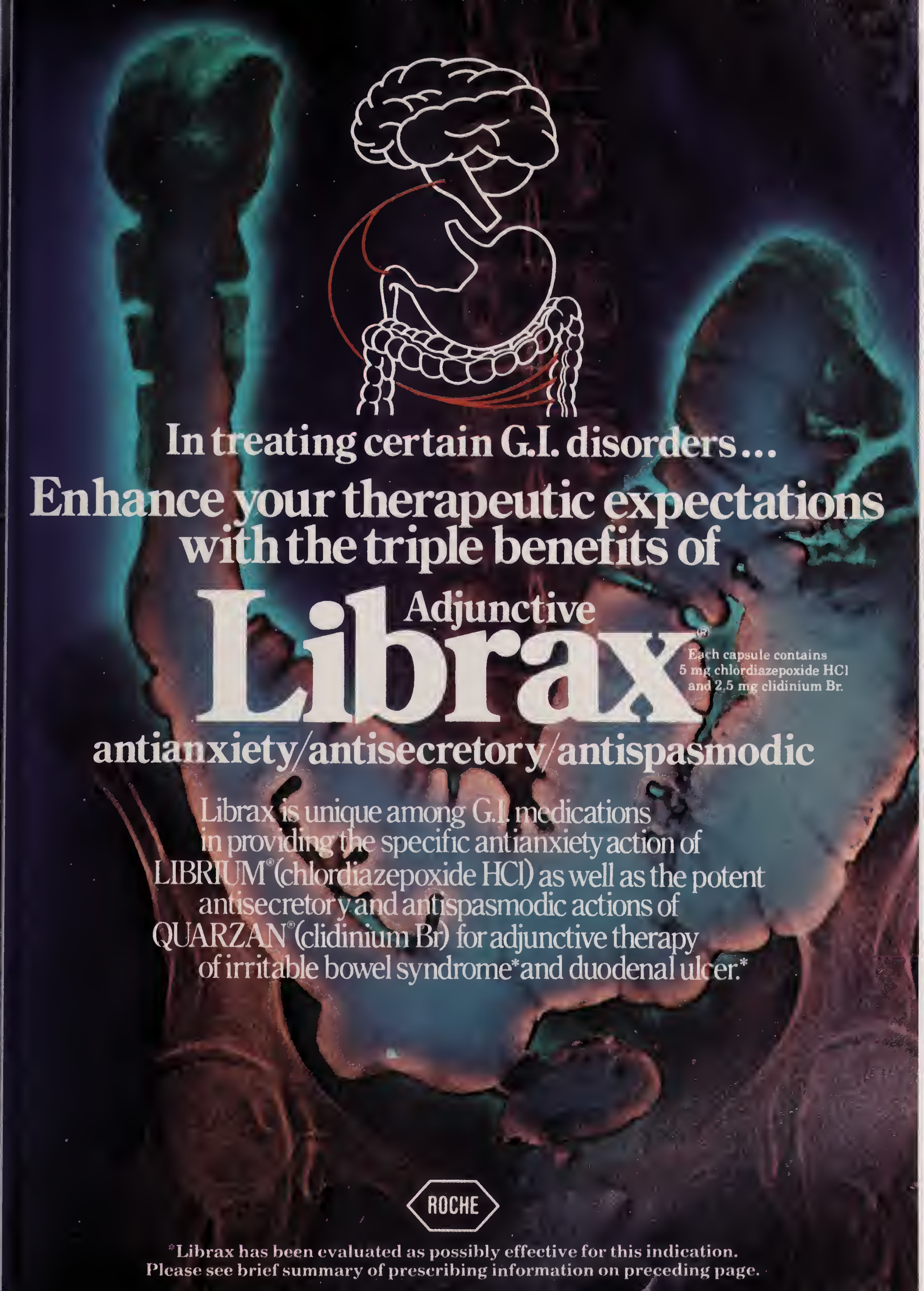

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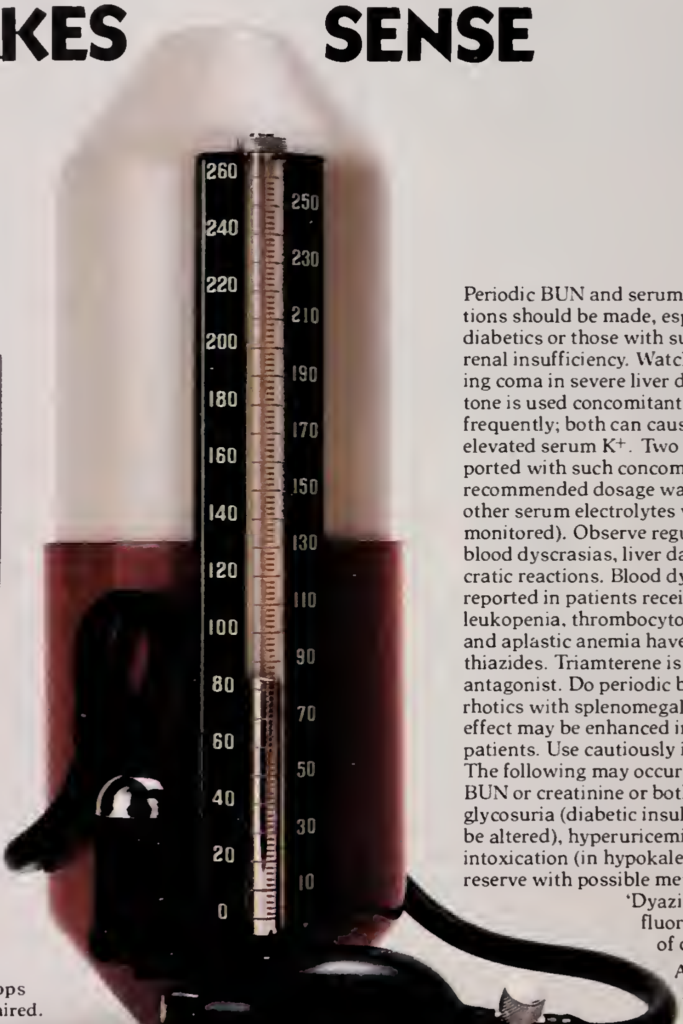

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# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**HEW** will inaugurate its surgical second-opinion program this summer. The promotional campaign to encourage patients, especially Medicare and Medicaid patients, to obtain a second opinion before deciding on surgery will include 60-second TV spot announcements, four-to-five minute radio "dramas" and five million leaflets to be enclosed with social security checks in selected areas. A national toll-free "hot line" will also be set up. HEW plans to spend $460,000 for the leaflets, $25,000 for the TV and radio promotion and $130,000 a year for the hot line.

**IN ITS ATTEMPT** to find avenues of "cost containment" for the government, HEW has again ignored overall human costs, the AMA said in a letter protesting changes in the Medicare Carriers Manual. The changes, announced by Transmittal 628 from the Health Care Financing Administration, require carriers to consider all laboratory services the same in determining reasonable charges and place a $3 national ceiling on handling charges when specimens are referred to a laboratory. The AMA, calling for withdrawal of Transmittal 628, said HEW's action is misleading to Medicare beneficiaries and is contrary to the spirit and intent of the recently issued Executive Order on rule-making procedures.

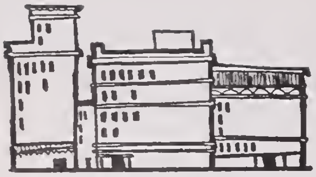
**PUBLIC RELATIONS** efforts for the AMA's Jail Program were honored with the Publicity Club of Chicago's highest award. Gilbert F. Martin, director of Magazine Relations in the AMA's Office of Public Relations, received the Edwin J. Shaughnessy Award for a campaign that makes "the foremost contribution to improvement of the quality of life in our society." Martin also received an honorable mention for the campaign as an "external public relations" effort. The AMA's Program to Improve Medical Care and Health Services in Correctional Institutions, funded by a grant from the federal Law Enforcement Assistance Administration, is developing a national accreditation system for jail medical programs.

**HEW REPRESENTATIVES** told the National Professional Standards Review Council that a U. S. District Court ruling would be appealed. The court ruled recently that a Washington, D. C., PSRO is an agency of the government subject to disclosure provisions of the Freedom of Information Act. The HEW officials said legislation to exempt PSROs from the act's provisions is being prepared. The Ralph Nader Health Research Group had filed suit in April to obtain the PSRO's records.

**MORE THAN 5,000** medical students and physicians-in-training borrowed more than $7.3 million last year through the American Medical Association Education and Research Foundation. Loans totaled $7,348,000 for an average of $1,422 each. Since the program began in 1962, the AMA-ERF has arranged and guaranteed loans amounting to approximately $85 million.

**BILLS TO CENTRALIZE** the evaluation of the use and cost effectiveness of medical technology and practice were opposed by the AMA in testimony before the House Commerce Subcommittee on Health. The AMA said the two bills (HR 4869 and HR 10839) "not only could lead to a stifling of research and other creative initiatives that are necessary to improve the quality of medical services available to patients in the future, but also could serve to regiment and to limit physician options in providing treatment to patients on an individualized basis."

**CONGRESS SHOULD UNDERTAKE** a broad review of regulatory agencies and programs "to untangle the bureaucratic web which appears to be trapping every American citizen," the AMA told the Senate Committee on Rules and Administration. Commenting in support of the concept of the proposed Sunset Act of 1977 (S 2), which would subject all federal programs to review and budget reauthorization at least once every six years, the Association also urged consideration of the changes suggested in the AMA draft bill on rule-making reform (HR 5633). "We believe," the AMA said, "that a coordinated and comprehensive program to oversee the activities of the regulatory agencies and programs is long overdue and we encourage you to consider appropriate legislation to that end."



# NEWS

## From the Medical Schools

### UNIVERSITY OF MISSOURI-COLUMBIA

*Dr. J. Ricardo Martinez,* associate professor of child health and physiology, was chairman for a workshop on model systems for the study of cystic fibrosis in Bethesda, Md. on May 25-26. Sponsored by the National Institutes of Health and the Cystic Fibrosis Foundation, the workshop involved about 40 investigators and clinicians in a critical review of animal, tissue and cell models currently being used in investigations relative to the pathogenesis and the basic molecular defect of cystic fibrosis.

*Dr. Guilio Barbero,* chairman of the Department of Child Health, also participated in the conference.

*Dr. Daniel J. Hurst,* director of the Pulmonary Medicine Division at the University Medical Center, was invited to present a paper on "Alterations in Lung Collagen Synthesis" at the joint annual meeting of the Association of American Physicians, the American Society for Clinical Investigation and the American Federation for Clinical Research held in San Francisco early in May. The three organizations are comprised of more than 12,000 clinical investigators interested in promoting and encouraging original research in clinical and laboratory medicine.

Investigators in the research laboratory of the Division of Gastroenterology, which is headed by *Dr. Kevin Ivey,* were invited to present a number of papers at national and international meetings this spring. At the meeting of the American Society for Gastrointestinal Endoscopy in Las Vegas, *Dr. Orlyn O. Lockard* offered results of studies of patients with rheumatic diseases on chronic aspirin therapy. *Dr. Rebecca Enochs* and *Ms. Kathleen Ackman* presented papers to the American Gastroenterological Association.

In April, *Dr. Gerald Silvoso* presented a paper entitled "Incidence of Gastric Lesions in Asymptomatic Patients with Rheumatic Disease on Aspirin" to the American College of Physicians in Boston. His paper was one of only 48 selected from throughout the United States. This is the third consecutive year that Fellows in Dr. Ivey's laboratory have been chosen to present papers at this prestigious meeting.

In June, Dr. Ivey will attend the VI World Congress of Gastroenterology in Madrid as an invited speaker. He also has been invited to speak before the Polish Academy of Sciences in Krakow where he will discuss "Peptic Ulcer and Gastritis."

*Dr. Luther Brady, Jr.,* professor and chairman of the Department of Radiation Therapy and Nuclear Medicine at Hahnemann Medical College and Hospital in Philadelphia, was the seventh annual Orthopedic-Radiology-Pathology Orator in May at the University Medical Center.

*James Holland,* M.D., one of the world's foremost clinical researchers in cancer chemotherapy, delivered the first annual Oppenheimer-Franklin Cancer Lectureship sponsored by the Hematology/Oncology Division of the Medical Center in May. An important source of Dr. Holland's research has been the Cancer and Leukemia Group B, a 31-hospital research network to which the UMC Medical Center belongs. Funded by the National Cancer Institute, the program provides participating hospitals' patients with the most up-to-date treatment protocols available.

### WASHINGTON UNIVERSITY

*Ronald G. Evens,* M.D., chairman of the Department of Radiology and director of the Mallinckrodt Institute of Radiology at the School of Medicine, was elected president-elected of the Society of Chairmen of Academic Radiology Departments (SCARD) at its recent meeting in San Antonio, Tex.

SCARD is composed of all academic radiology chairmen in the United States and Canada. The Society promotes medical education, research and patient care in the field of radiology.

Dr. Evens also has been appointed to serve for a three-year term as a member of the Medical Radiation Advisory Committee of the Bureau of Radiological Health for the Department of Health, Education and Welfare.

The 13-member committee is the principal medical advisory committee to the Bureau and concerns itself with problems related to the medical use of all forms of radiation in diagnosis and therapy.

## ST. LOUIS UNIVERSITY

*William H. Friedman,* M.D., F.A.C.S., chairman of the Department of Otolaryngology, is the recipient of the prestigious Ira J. Tresley Memorial Award in facial plastic surgery for outstanding original research with significant patient applicability presented by the American Academy of Facial Plastic and Reconstructive Surgery at the annual scientific meeting of the Academy in Palm Beach, Fla.

The Ira J. Tresley Memorial Award was established in 1972 and is presented annually in honor of the late Ira J. Tresley, M.D., former president of AAFPRS.

**Dr. Friedman**

*Leo C. Senay, Jr.,* Ph.D., professor of physiology, was named "Scientist of the Year" by the St. Louis University Chapter of the Society of Sigma Xi at a dinner held in his honor. He was presented with a certificate and a monetary award for "Excellence in Research" by Dorothy Feir, Ph.D., president of the Society.

Dr. Senay pioneered research in thermoregulation and physiological responses of man to heat exposure and is currently researching body fluid responses in individuals working in hot, humid environments. He is a renowned authority on changes in body fluids and is in demand at many national and international symposia.

*Stanley N. Cohen,* M.D., professor of medicine and genetics at Stanford University, delivered the Tenth Annual Wendell Griffith Memorial Lecture at the School of Medicine on May 3. Dr. Cohen, who is one of the eminent researchers in the field of recombinant DNA, spoke on "Site-Specific Recombination and Plasmid Evolution."

*Robert E. Olsen,* M.D., Ph.D., chairman of the Edward A. Doisy Department of Biochemistry, was awarded a two-year grant for $54,000 by the National Fund for Medical Education, Hartford, Conn., for the development of an innovative medical curriculum program to teach basic and clinical nutrition education to University medical students during each of their four years of medical study.

*Arnold Kaplan,* Ph.D., associate professor of microbiology, has been awarded a three-year research grant for $160,000 by the National Institutes of Health for the purpose of developing an effective mean of introducing active enzymes into the cells of children with enzyme deficiencies.

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Nov. 12 Seminar VII—Implant Surgery: Status of the Art

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University of Missouri-Columbia
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

Aug. 10-11 Workshop in Soft Tissue Surgery
(Contact J. Regan Thomas, M.D., Section of Otolaryngology)

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The Edward Mallinckrodt Institute of Radiology—Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

Oct. 10 Seventh Annual Wendell G. Scott Lecture

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

Aug. 2 Anxiety, Depression and Psychosexual Problems

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St. Luke's Hospital
Foundation for Medical Education and Research
Wornall Rd. at 44th, Kansas City 64111
(816) 932-2047
*Contact:* Robert Newman, M.D., Program Director

Aug. 3-5 Seminar: Understanding and Treating the Adolescent Female
(Vail, Colorado)

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Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673
*Contact:* Loretta Giacoletto

Nov. 10-12 Fifth Annual Symposium—Anesthesia and the Geriatric Patient

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Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**Important Note:** When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**Contraindications:** A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**Warning:** Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**Precautions:** The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**Adverse Reactions:** Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

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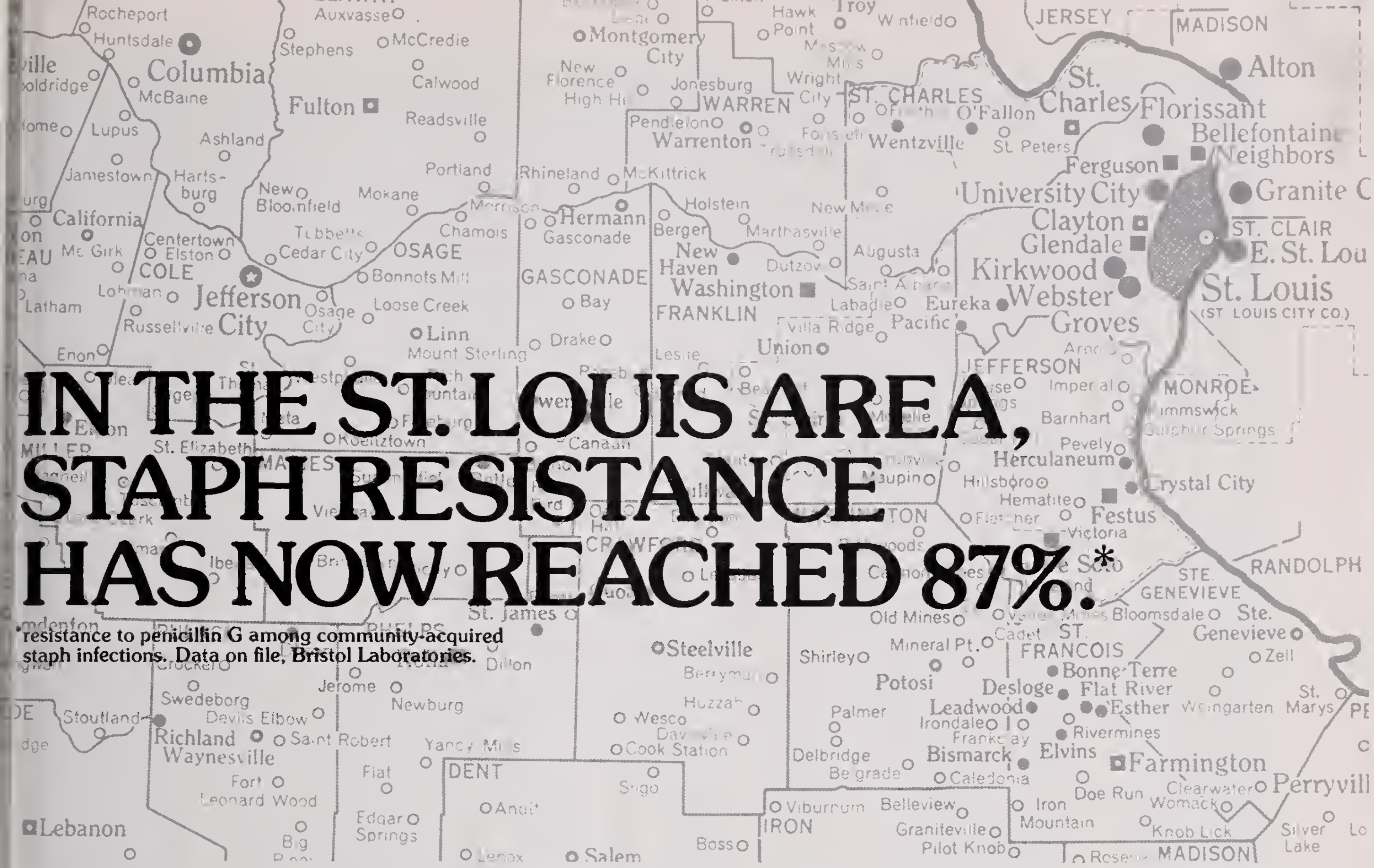
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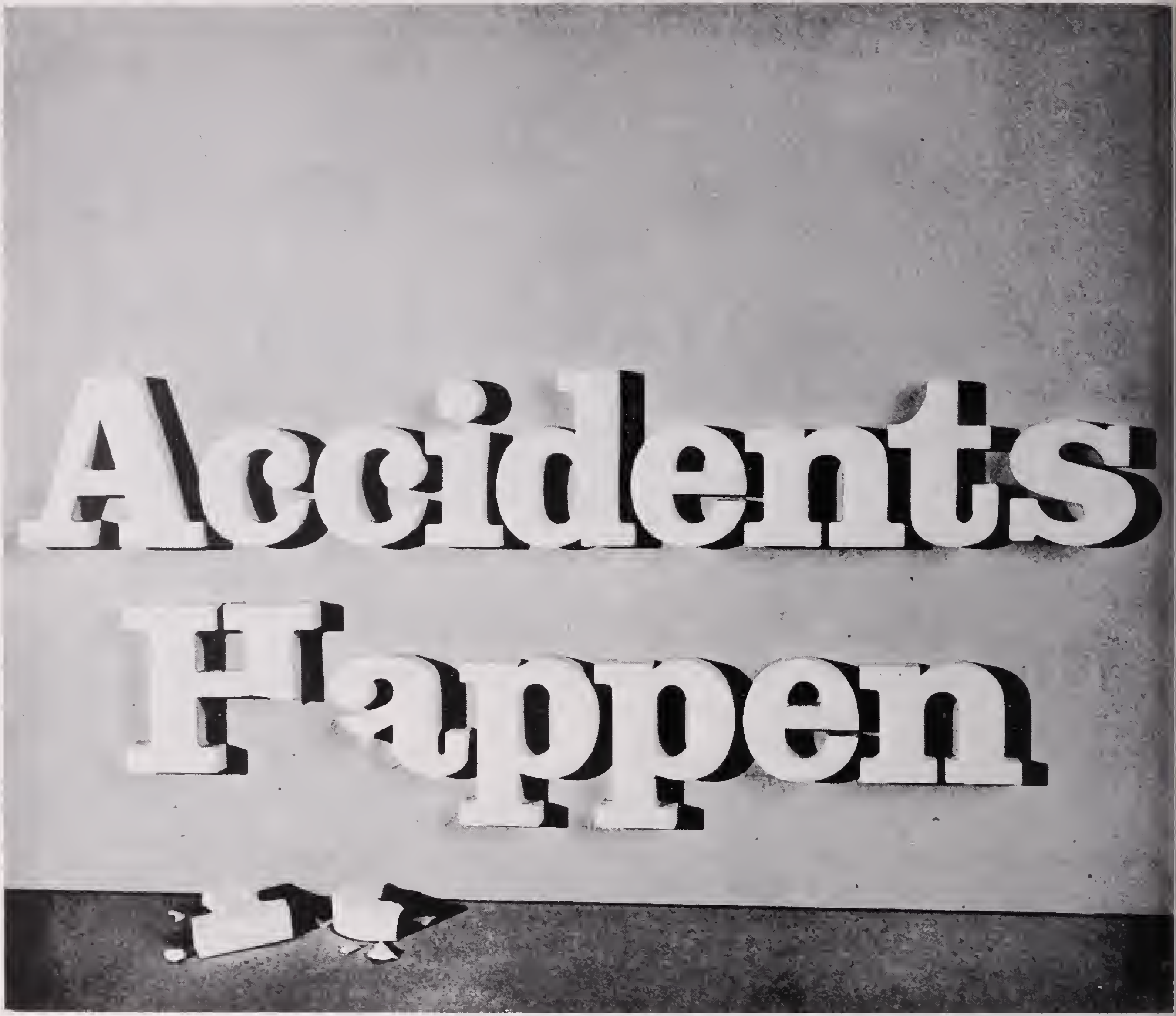

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**CHANDLER SMITH, M.D.,** *Kansas City*

# Myocardial Infarction: Thrombotic or Metabolic?

IT IS SURPRISING how recent the consideration of the cause of myocardial infarction is. In 1908, Osler published his "Diseases of the Circulatory System" which consisted of 13 chapters; not one bears a title expressing the topic of myocardial infarction.[1] Moreover, coronary thrombosis was regarded as a hopelessly fatal condition. In Chapter 12, the following statements are made:

"Stoppage of the main branch of the coronary artery results in most instances in sudden death. . . . In some, the end is so sudden and unexpected that there is not even a change in the facial expression. . . . The symptoms of obstruction of the coronary vessels are not very characteristic, and it is only rarely that the lesion can be diagnosed during life. . . . The diagnosis of coronary artery thrombosis or embolism is at best a question of probabilities. . . . The diagnosis [is] so uncertain, it is impracticable to discuss the prognosis."

Thus, in 1908, coronary thrombosis was regarded as a condition difficult to diagnose, impossible to treat and the cause of sudden death.

In 1912, J. B. Herrick correlated coronary thrombosis with myocardial infarction in his report of one case.[2] Seven years later in 1919, he reported three more cases.[2] All were coronary thrombi and myocardial infarcts. Moreover, the thrombi were in the vessels serving the necrotic muscle. Thus, the idea that coronary thrombi cause myocardial infarcts was generated.

As the years went by, however it was noted that not all cases of myocardial infarction showed thrombi in the coronary arteries. A tabulation of the frequency of thrombi associated with infarcts of the myocardium showed a wide range of results.[3] A partial listing is shown in Table 1 which includes the highest and lowest values.

It is evident that some patients in most series fail to show coronary thrombi and that the frequency of thrombi among different series is extremely variable. It is hard to make the ease that coronary thrombi cause myocardial infarcts when such thrombi are so frequently absent.

Roberts and colleagues carried the question further. They examined 107 cases of myocardial infarction and tabulated both the frequency of coronary thrombi and the relationship of thrombi to the duration of life after the clinical onset of the illness.[4] In the 74 patients with large transmural infarcts, there were 40 with coronary thrombi. In 24 with subendocardial infarcts, however, there were

**In 1908, coronary thrombosis was regarded as a hopelessly fatal condition. Later, it was noted that not all cases of myocardial infarction showed thrombi in the coronary arteries. The author reviews further studies made throughout the years and concludes that the pathogenesis of myocardial infarction is still uncertain. He suggests that the final words on this subject have not been written. Dr. Smith is Professor and Chairman, Department of Pathology at the Truman Medical Center.**

TABLE 1

FREQUENCY OF CORONARY THROMBI IN MYOCARDIAL INFARCTION

| *Author* | *Year* | *No. Cases* | *Thrombi %* |
|---|---|---|---|
| 1. Herrick | 1919 | 3 | 100 |
| 2. Baroldi | 1965 | 449 | 47 |
| 3. Chapman | 1968 | 292 | 95 |
| 4. Spain *et al* | 1970 | 391 | 29 |
| 5. Bouch *et al* | 1970 | 100 | 66 |

no thrombi, and in nine patients with sudden death but no infarcts, there were only two thrombi. Thus, in 107 patients, only 42 coronary thrombi were found. Looking further at these results, the authors noted that with pump failure or shock, thrombi were frequent and that the longer the duration from clinical onset to death, the higher the frequency of thrombi in the coronary arteries. From their detailed study, certain conclusions were reached. They are that all patients with myocardial infarcts have greater than 75% stenosis of their coronary arteries, that some patients with myocardial infarcts do not have coronary thrombi and that the frequency of such thrombi increases with pump failure, hypotension or long duration between clinical onset and death. It has been shown experimentally that the coronary circulation becomes slow in the region of a myocardial infarct.[5] Since low blood pressure, stasis of coronary flow and the passage of time are the conditions of thrombosis and since coronary thrombi are frequent under these conditions but infrequent when blood pressure is maintained or clinical duration is short, Roberts and Buja proposed that the thrombi in the coronary arteries are secondary to infarction of the myocardium.[4]

In connection with this conclusion, Roberts credits Nathanson with a perceptive view at an early time.[4] In 1925, Nathanson wrote:

"... It seems justifiable to conclude from this analysis [review of necropsy reports of 113 cases of severe coronary disease] that coronary disease shows a similar clinical picture irrespective of whether a thrombus is present or not. A prolonged attack, consisting of an initial shock which the patient survives, is more frequent with a thrombus. Such a picture does occur, however, in coronary sclerosis without thrombosis. There does not seem, therefore, to be any justification for drawing any sharp distinction between these conditions. Since coronary thrombosis is constantly associated with sclerosis of the vessels, it is most reasonable to regard a thrombus not as an entity, but merely as one of the end results of coronary disease. . . ."

Erhardt and colleagues at the Karolinska Institute saw a way to test the question of whether coronary thrombi cause myocardial infarcts.[6] They injected fibrinogen tagged with a radioisotope of iodine into the veins of patients within a short time of the development of a "heart attack." They reasoned that if thrombi cause infarcts, then the thrombus would precede the infarct and the radioactive tag would be localized at the periphery of the thrombus. On the other hand, if infarcts cause thrombi, then the infarct would appear first and the circulating radioactive fibrinogen would be incorporated into all parts of the thrombus as it formed. The experiment was done and the radioactive tag was for the most part, admixed with all parts of the thrombus. In this way, objective evidence was provided to suggest that the infarct precedes the thrombus and may be the cause of it.

The obvious question thus remains: if coronary thrombi do not cause myocardial infarcts, what does? The constant finding is that over 75% stenosis is present in at least two of the three main arteries in cases of myocardial infarction. The question, therefore, may be rephrased—what causes a barely adequate oxygenation to become an inadequate oxygenation? It is experimentally demonstrable that catecholamines lead to myocardial necrosis. This has been extrapolated to suggest that environmental stress may be the cause of myocardial necrosis.[7] A clinical example may be the father who has a heart attack and dies within hours after learning that his son has been killed in war.

In addition, Sodi-Pallares of the Heart Institute of Mexico reminds that "The heart is not alone in the body." It is subject to metabolic effects and it is especially responsive to thyroxine, insulin and the catecholamines. He regards coronary thrombi as secondary events and aims therapy at the metabolic causes of infarction rather than at the thrombi as consequences of those infarcts.

It may be concluded that the pathogenesis of myocardial infarction is still uncertain. The spectrum of possibilities includes coronary atherosclerosis, coronary thrombosis and metabolic disturbances of the myocardium. While the truth will eventually be learned, it is, nevertheless, an interesting transition from the earliest days of hopeless disregard, which were barely 60 years ago, to the middle period of confident pathogenesis based on coronary thrombosis, and then, to the emerging

(Continued on page 273)

J. Y. JUNG, M.D., CARL H. ALMOND, M.D.
*and* ZUHDI LABABIDI, M.D., *Columbia*

# Coarctation and Hypertension

## *A Collective Review*

In 1760, Morgagni[1] described coarctation of the aorta. Subsequently, Paris[2] also documented anatomical findings of this pathology in 1791. Before successful surgical correction was performed by Crafoord in 1944[3] and by Gross in 1945,[4] this lesion had remained largely a pathological curiosity. Since these epochal achievements of surgical repair, coarctation of the aorta has become an important clinical entity. Clinical recognition and surgical correction are the standard practice at present. However, clinical pictures can be complicated because of associated lesions. Indications for operation in the infant and in the adult are different. Management of the complications such as persistence of paradoxical hypertension also pose a major problem following surgical correction. In the subsequent section, discussion of these problems will be made from a survey of the literature.

### Anatomy

The anatomical configuration of the lesion is fairly consistent. By definition, it is a congenital narrowing of the aorta of variable length and location. Ninety-five percent of all coarctations are located distal to the left subclavian artery in close proximity to the ductus arteriosus or ligamentum arteriosum. The remainder occur elsewhere in the thoracic or abdominal aorta.[5-10] Variations in anatomical findings are common and are from localized, complete interruption to long, narrowed segments of hypoplasia extending to the aortic arch.[11, 12] It may have a proximal or distal relationship to the ductus arteriosus. Patency of the ductus affects the pathophysiology and complexity of the surgical repair. In spite of this, the classification most commonly used in clinical practice is that based on its relationship to the ductus arteriosus as follows:[13-15]

1. Preductal coarctation. This lesion is most commonly encountered in infants and frequently is associated with complex congenital cardiac lesions. As mentioned above, it may also be present with a hypoplastic aortic arch.

2. Postductal coarctation is usually discrete, rarely associated with complex congenital cardiac anomalies and frequently permits survival to adulthood.

Other classifications have been provided by other authors. Lindesmith *et al*[16] categorized three groups: (1) Physiological symptoms are solely due to the narrowing of the aorta; (2) a hypoplastic segment of the aorta is responsible for the physiological symptoms; (3) coarctation associated with patent ductus arteriosus with right to left shunt distal to the coarctation.

A similar classification has been proposed by Nadas.[17] This consists of coarctation with the entire systemic circulation provided by the left ventricle and coarctation with systemic right and left ventricles. In the later case, circulation to the body distal to the coarctation is provided by the right ventricle through the patent ductus. These classifications depict both pathophysiology as well as anatomical abnormality. Its routine use should have a greater clinical value.

Associated lesions are particularly prevalent in the preductal group. Among them, patent ductus arteriosus, aortic valve deformity and ventricular septal defect are the most common. Turner syndrome was found in five occasions in 390 cases reported by Lindesmith *et al.*[16]

The bicuspid aortic valve is commonly associated in about 40% of reported series [18, 19] with the postductal type. The combination of mitral regurgitation is less common (2.1%) but constitutes a challenging problem in the management.[20]

### Clinical Symptoms and Signs

The clinical picture in the young infant presents a separate and distinct entity. Coarctation of the aorta in the first year of life could produce intractable congestive heart failure. The coarctation can be simple or associated with other cardiovascular anomalies. Clinical pictures depend on associated cardiac lesions in this complicated group. In either complicated or simple coarctation, congestive heart failure is a common clinical feature if surgical resection is required. Clinical signs similar to those in older children or adults are weakness or absence of femoral arterial pulses and presence of brachial-femoral pulse lag. A pressure gradient of 20 mmHg from the arm to the leg is significant. Chest x-ray reveals cardiomegaly. Notching of the ribs is not discernible.

An electrocardiogram (EKG) carries no specific diagnostic value.

Particular caution should be taken in those cases of patent ductus arteriosus with right ventricular flow to the descending aorta because the femoral pulses can be easily palpated.

The older children are mostly asymptomatic. The lesion is suspected clinically during the routine physical examination because of absent femoral and distal pulses. In the older individuals, the diagnosis is made during an assessment of hypertension or the routine physical examination. The patient is found to have weak or absent distal pulses. Intracranial hemorrhage as a complication of hypertension may be present as an initial symptom. Increased incidence of the berry aneurysm of the intracranial vessel associated with coarctation has been cited[21] and could be responsible for intracranial hemorrhage. Chest x-rays in older children and adults usually reveal reverse E sign, left heart enlargement, enlargement of the ascending aorta and rib notching. The EKG reveals left ventricular hypertrophy in the majority of the cases.

## Mechanism of Hypertension

It has long been thought that the proximal hypertension was the result of obstruction of the flow at the site of coarctation. Bing *et al* in 1948[22] found no evidence of generalized increase in peripheral vascular resistance but demonstrated that the coarctation and collateral channels created sufficient increase in the peripheral resistance and resulted in proximal blood pressure elevation. In clinical practice, after repair of the coarctation, a sudden fall of blood pressure has been observed frequently. In contrast, a gradual drop in blood pressure over a period of several days or even weeks is not uncommon. Persistence of hypertension or even paradoxical hypertension has been seen frequently.

Other mechanisms obviously participate in the production and regulation of the hypertension. Renal mechanisms have been investigated extensively since Goldblat's classic experiment.[23] Scott's and Bahnson's experiment in 1951[24] seemed to strongly support evidence that renal mechanisms play an important role in producing proximal hypertension. In these experiments, the proximal hypertension produced by coarctation was promptly alleviated by transplantation of the kidney to the neck along with nephrectomy, even though the pressure gradient across the coarctation persisted.

Yagi *et al* [25] pointed out that renin activity reached maximal levels within 24 hours after creation of coarctation in the dog which correlated with proximal hypertension. In one to two weeks, however, renin activity returned to control levels despite persistent proximal hypertension.

Werning *et al*[26] and Amsterdam *et al*[27] found no evidence of increased plasma renin activity in the patients with coarctation. They felt that the renal mechanism is not the major factor in the pathogenesis of hypertension in coarctation.

Numerous other ingeniously designed experimental studies have been reported. Basing their data on experimental results, Wofik *et al*[28] conclude that both mechanical and renal mechanisms contribute to the hypertension in coarctation of the aorta. To date, participation of the renin-angiotension system in the hypertension due to coarctation of the aorta has been suggested and denied. Both mechanical and renal mechanisms may well be operative, but they have not been conclusively proven. More recently, Bevan *et al* in 1975[29] have shown that the artery proximal to the coarctation of the aorta has increased responsiveness to norepinephrine. Its clinical significance needs to be elucidated.

## Therapy

Surgical repair of the coarctation is the standard practice at the present time. The indication for operation and the timing of the operation in the young infants and in the older groups are different. In the first year of life, the most common indication for resection of coarctation is congestive heart failure[16, 30-34] which fails to respond to intensive in-hospital medical treatment. If the patient improves with medical treatment, the operation should be withheld. Cardiac catheterization in these groups of the patients is mandatory for two reasons: (1) to diagnose associated cardiac anomalies and (2) to evaluate the status of the aortic arch. Surgical treatment consists of resection of the coarctation with end-to-end anastomosis. Interrupted sutures are used in the anterior anastomosis to avoid persistent stenosis. Concomitant closure of patent ductus arteriosus is carried out if no contraindication is present.

Indications for operation in the older child or adult are correction of coarctation in order to correct hypertension[35] and prevent its complications, such as cardiovascular accidents,[36] subacute bacterial endocarditis and aneurysmal formation either proximal or distal to the coarctation.[37] The natural history has shown that the life expectancy is shortened without surgical correction.[38, 39] Sixty-one percent of the patients die before the age of forty.[40] The timing for operation is determined by the size of the aorta. Obviously, operation is apt to be more permanently beneficial if the aorta is allowed to approach its adult size. In Lindesmith's series,[16] however, the incidence of recurrence or persistent gradient across the anastomosis in the five-to-nine age group was only 2%. Therefore it is preferable to delay the surgery until the age of five. However, operation should not be delayed in the face of refractory or recurrent congestive heart failure. In the adult, as the age advances, the risk of operation increases because the aorta is less elastic or sclerotic and intercostal arteries are thin-walled and aneurysmal. However, age is not an absolute contraindication because the operation is the only means to effectively relieve hypertension.

### OPERATIVE TECHNIQUE

Surgical correction is accomplished in three ways:

1. Resection of the coarctation with end-to-end anastomosis remains the most common technique of repair since Crafoord and Nulin[1] and Gross and Hufnagel[2] first employed this method successfully. In the young children, in order to allow adequate growth at the anastomotic site, placement of interrupted sutures at the anterior half of the anastomosis is necessary.[41–43] In spite of this technical precaution, the recurrence rate in infants under the first year of life has been about 20% to 34%.[16, 31, 44–48] It also is impossible to perform this type of repair in the patient with a long segmental narrowing. So, a second method has been advocated.

2. Advantages to patch graft aortoplasty[49–54] include less mobilization of the aorta, and the technique is adaptable to long coarctation segment reconstruction. No negotiation of the suture line tension is necessary and the intact posterior aortic wall affords potential growth of the aorta. This technique is particularly useful in the adult patient with a calcified coarctation. However, a caution should be taken in constructing the large patch, otherwise a gradient will be persistent causing the repair to be less than satisfactory. Reul *et al*[54] observed a long-term follow-up (up to 12 years) in a group of patients more than two years of age. Only one patient out of 51 had a gradient of 20 mmHg after the repair of coarctation using this method.

3. In particular occasions, such as complete atretic coarctation or with resection and end-to-end anastomosis which produced tension that was felt to be excessive, bypass or interposition grafting techniques become necessary and have been advocated by some authors.[55, 56]

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**Recognition and surgical treatment of coarctation of the aorta comprise the standard practice at the present time. Indication for surgery in infants is to alleviate intractable congestive heart failure. In older children and the adult, the major purpose is to correct hypertension and prevent its complications. The authors review the mechanism of hypertension, paradoxical or persistent hypertension and other postoperative complications and discuss operative techniques. Drs. Jung and Almond are from the Section of Thoracic and Cardiovascular Surgery, University of Missouri Medical Center. Dr. Lababidi is from the Department of Pediatrics.**

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Other supplementary techniques, such as left subclavian flap repair,[57] have been ingeniously designed but are currently employed only in unusual circumstances.

### SPECIAL POSTOPERATIVE CONSIDERATIONS

1. Paradoxical hypertension is a well recognized phenomenon after surgical resection of coarctation.[57–60] The incidence of paradoxical hypertension after resection of the coarctation varies with each series, but it is usually in the vicinity of 35%.[16, 61, 64] Sealy *et al*[57] first recognized the problem and documented that the hypertension can either be systolic or diastolic. The duration is usually transient and the course is self-limited, but persistent hypertension[62] has been observed.

Many mechanisms have been invoked on the basis of clinical observation and laboratory investigations to explain its occurrences. These include carotid baroreceptor resetting,[26, 58] increased secretion of catecholamine and its metabolites[58, 63, 64] and increased renin activity in the plasma.[26, 58, 65]

Rocchini *et al*[66] recently observed a group of children with paradoxical hypertension after resection of the coarctation under a well-planned, controlled setting. They found that the initial rise in the systolic blood pressure (35 ± 15.5 mmHg) in the first 24 hours seemed not to correlate with plasma renin activity, but the patients revealed significant depression in the cold pressor test response. In the next 24 to 72 hours, the patient developed diastolic hypertension which corresponded well with increased plasma renin levels. Based on these observations, they suggested that the initial hypertension was governed by sympathetic nerve systems, but, in the second phase of diastolic hypertension, the renin-angiotension system played a major role.

2. Mesenteric arteritis and arteriolitis describe a group of complications which follow the repair of coarctation with a reported incidence of 2% to 28%.[54, 64, 67-71] The majority of these patients are associated with the paradoxical hypertension discussed in the previous section. However, abdominal pain syndrome could occur without paradoxical hypertension.[64] The increased peripheral pressure head, increase in pulsatile pressure waves and reactive vascular spasm have been postulated to be the causes. Clinical manifestations consist of a wide spectrum from mild abdominal pain to ileus, frank bowel necrosis and necrotizing pancreatitis. This complication seems directly related to the hypertension, so it is of utmost importance to treat the hypertension. Symptoms usually subsided with adequate treatment.

Currently, we monitor the arterial pressure and control the pressure with nitroprusside drips to maintain systolic pressures below 150 and diastolic pressures below 100 mmHg during the postoperative period. With this management, this complication is rarely observed. If frank melena, fever and leukocytosis make their appearance, early laparotomy and resection of necrotic bowel is advised.

3. *Residual hypertension.* Even though resection of the coarctation has significantly reduced the blood pressure in the majority of patients,[69, 72] persistent hypertension may be observed in some patients.

Nanton *et al*[73] found 15% of 190 patients had residual hypertension without explainable causes after resection of coarctation. They also pointed out that the earlier the operation, the greater the reduction of the blood pressure index. Chariello[74] also found 19% of 120 patients to be persistently hypertensive after surgical therapy. These facts indicate that a substantial number of patients require a close follow-up and careful management of hypertension after resection of coarctation of the aorta.

4. Spinal cord complications are rare, but serious complications after resection of coarctation of the aorta result in weakness of the lower part of the body or even paraplegia. Brewer *et al*[75] found 66 cases (0.41%) in a review of 12,532 cases. They cited that this complication resulted from inadequate artery supply through the anterior spinal artery. They emphasized that during operation, every effort should be made to preserve collateral circulations.

### MORTALITY RATE

As described in the previous section, the resection of coarctation of the aorta in infancy is associated with a high mortality rate (36%-50%). Cause of death is usually associated with congenital cardiac defects, pulmonary hypertension and intractable congestive heart failure. In the older children and adult, the elective operation can be carried out safely with a mortality of 2.5% to 5%. In patients above the age of 40, the mortality rate increases substantially (13%-15%), but age alone is not a contraindication of operation.

### PROGNOSIS AFTER OPERATION

It has long been a belief that after coarctectomy, the prognosis is usually good. However, Maron[62] emphasized the high incidence of premature cardiovascular disease based on 11 to 25 years of follow-up on their 248 patients. Twelve percent of the patients died during the follow-up period of cardiovascular causes. His data also demonstrate a high incidence of late postoperative hypertension (33%). Whether this is a combination of essential hypertension and residual hypertension from coarctation or represents persistent hypertension from coarctation is not clear. His data also suggest that prolonged preoperative hypertension with operation after 25 years of age is associated with an increased risk of premature cardiovascular death. Simon[76] also indicates premature cardiovascular disease and death in 11 of 190 patients operated on with a mean follow-up of 6.6 years. Forty-five patients revealed electrocardiographic abnormalities and 72 had radiographic evidence of left ventricular abnormalities. James and Koplan[77] subjected 14 post-coarctectomy patients to strenuous exercise and marked systolic hypertension of 212 mmHg-270 mmHg was observed in 65% of the patients. However, the diastolic pressure tended to be unchanged. The S-T segment change could be related to premature coronary artery disease which tended to occur in young patients with coarctation of the aorta.[78] The majority of the other reports[74, 79] express satisfactory results. Long-term results need to be reassessed.

At present, we should emphasize two points. Operation for coarctation should be carried out at an early age and preferably at five to six years in

(Continued on page 273)

**EDWIN E. MacGEE, M.D.,** ***Kansas City***

# Microsurgical Treatment of Intracranial Aneurysms

An intracranial aneurysm is the single most common cause of spontaneous subarachnoid hemorrhage (SAH). This problem may affect 20,000 patients annually in the United States and Canada. There is a 50%-60% mortality in these patients from either the initial hemorrhage or repeat hemorrhage within the first year.[1] Aneurysms rebleed at a rate of 3% annually.[2] The purpose of surgery is to isolate the aneurysm from the remainder of the circulation and, thereby, prevent further hemorrhage. There are many reports of series of surgically treated aneurysms. However, the results are highly variable. This paper reports one surgeon's experience with intracranial microsurgical ligation of 18 aneurysms in 16 patients in the past three years.

## Clinical Data

This series consists of 16 consecutive patients operated on in Kansas City hospitals during the past three years. There were 12 women and four men whose ages ranged from 23 to 78 years with 12 between 40 and 63 years. All patients had cerebral angiography.

There were six aneurysms on the anterior communicating artery (ACA), four aneurysms on the internal carotid artery (ICA), three aneurysms on the middle cerebral artery (MCA) and three aneurysms on the posterior circulation (Post.). These included one aneurysm on the posterior cerebral artery, one aneurysm on the superior cerebellar artery and one aneurysm on the posterior inferior cerebellar artery. The latter patient had hydrocephalus from a hematoma in the fourth ventricle. She required a ventriculoperitoneal shunt. Another patient had multiple aneurysms. She bled from an aneurysm of the posterior cerebral artery. She had ligation of this aneurysm and also ligation of two aneurysms on the ipsilateral ICA: one was at the origin of the posterior communicating artery and one was at the ICA bifurcation. She also had an aneurysm of the basilar artery. This and one other patient had wound infections necessitating removal of their bone flap. Six patients had intracerebral hematomas.

A modification of Hunt's patient grading system was utilized (Table 1).[3] The patients were operated on an average of ten days after their SAH and an effort was made to follow the operative technique of Yasargil.[4-5] Heifetz aneurysm clips were used.[6]

There were 13 good and two fair results. Patients listed under good results are those who returned home to their previous occupation with no neurologic deficit or minimal and nondisabling neurologic deficit. Patients with fair results were those who returned home with a moderate neurologic deficit, such as hemiparesis. Patients with poor results survived with a severe neurologic deficit. They were not self-sufficient.

There was one death. This was a deeply comatose moribund patient with intracerebral and intraventricular hemorrhage who died without regaining consciousness six days after surgery which was done primarily to remove the massive hematoma.

Postoperative vasospasm occurred once and was manifest by transient hemiparesis and aphasia. This was in a man with an ACA aneurysm and duplication of the ACA. He required two operations because his aneurysm was not found initially. Table 2 shows the surgical results according to location of the aneurysm. Table 3 shows the results according to preoperative grade. No patient has rebled following surgery.

## Discussion

In 1966, it was stated that a 30%-33% overall mortality rate under the conditions listed in the Cooperative Study could be used as a guideline by the average neurosurgeon.[7] Following intracranial sur-

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**A subarachnoid hemorrhage from an intracranial aneurysm is a problem that is frequently fatal but potentially curable** when surgery **is performed to prevent further hemorrhage. This is a review of the author's three-year microsurgical experiences with 16 consecutive patients. Dr. MacGee is Clinical Associate Professor of Neucrosurgery,** University of Missouri-Kansas City School of Medicine.

### TABLE 1

### CLASSIFICATION OF PATIENTS WITH INTRACRANIAL ANEURYSMS ACCORDING TO SURGICAL RISK (HUNT)

| *Category* GRADE | *Criteria* |
|---|---|
| I | Asymptomatic |
| II | Headache, nuchal rigidity, no neurologic deficit other than cranial nerve palsy |
| III | Drowsiness, confusion or mild focal deficit |
| IV | Stupor, moderate to severe hemiparesis, possibly early decerebrate rigidity and vegetative disturbances |
| V | Moribund |

### TABLE 2

### SURGICAL RESULTS ACCORDING TO LOCATION OF ANEURYSM

| | *Results* | | | |
|---|---|---|---|---|
| *Artery* | GOOD | FAIR | POOR | DIED |
| ACA | 4 | 2 | 0 | 0 |
| ICA | 4 | 0 | 0 | 0 |
| MCA | 2 | 0 | 0 | 1 |
| Post. | 3 | 0 | 0 | 0 |
| Total | 13 | 2 | 0 | 1 |

### TABLE 3

### SURGICAL RESULTS ACCORDING TO PATIENT'S PREOPERATIVE GRADE

| | *Results* | | | |
|---|---|---|---|---|
| *Grade* | GOOD | FAIR | POOR | DIED |
| I | 0 | 1 | 0 | 0 |
| II | 9 | 0 | 0 | 0 |
| III | 3 | 1 | 0 | 0 |
| IV | 1 | 0 | 0 | 0 |
| V | 0 | 0 | 0 | 1 |
| Total | 13 | 2 | 0 | 1 |

### TABLE 4

### YASARGIL SERIES

| *Patients* | *Grade* | *Mortality (%)* |
|---|---|---|
| 279 | I-II | 0.7 |
| 140 | III | 2.1 |
| 86 | IV-V | 17.4 |
| Total 505 | | 4.0 |

gery, there was a useful functional survival of 46% among those patients with single aneurysms. Thus, 54% of individuals with single aneurysms subjected to intracranial surgery either died or were economically incapacitated.

In 1972, Yasargil reported a 1.6% mortality in 250 patients with preoperative grade I-III.[4] This led Sugar to state that "these results are fantastically superior to those of anyone else."[8] In 1975, Yasargil reported his series of 505 patients operated on from 1967-1974 (Table 4).[5]

In 1976, Sundt reported an overall 5% mortality in 323 patients operated on at the Mayo Clinic during the last seven years.[9, 10]

In 1977, Zlotnik reported an overall mortality rate of 5.8% in 137 patients operated on from 1968-1975.[11] Good results were obtained in 92.6% of the patients who were in satisfactory condition preoperatively. Ballenger reported a 5% surgical mortality in 62 patients with preoperative grade I-III.[12] There were no grade IV or grade V patients in this series.

The present small series with no mortality in grades I-IV, an overall mortality of 5% and no poor results compares favorably with other series regarding morbidity and mortality.

The striking improvement in morbidity and mortality figures during the last ten years is due primarily to the use of microsurgical technique. Yasargil emphasized the value of the operating microscope and stressed the importance of minimal brain retraction and the "gentle touch" in aneurysm surgery. These data show the results that can be obtained by neurosurgeons committed to treating substantial numbers of patients with subarachnoid hemorrhage from intracranial aneurysms.

## CONCLUSION

Subarachnoid hemorrhage from an intracranial aneurysm is a frequently fatal but potentially curable problem. Surgery is done to prevent further hemorrhage. This paper presents a review of one surgeon's three-year microsurgical experience with 16 consecutive patients. There was no mortality for patients with preoperative grades I-IV and the overall mortality was 5%. Morbidity was minimal. No patient has rebled following surgery.

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## *Myocardial Infarction*

*(Continued from page 266)*

present when metabolic effects bid to become the root cause of the myocardial disease. It is, perhaps, only possible to say that the final words on the subject of myocardial infarction have not yet been written.

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## *Coarctation and Hypertension*

*(Continued from page 270)*

simple coarctation. Long-term medical attention should be given to these patients after surgery to detect premature cardiovascular disease and they should be treated accordingly.

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**Note: The list of references for this article will be published in the author's reprints or can be obtained from the authors at the following address:**

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**JONG D. LEE, M.D.** *and* **RAYMOND O. FREDERICK, M.D.,** ***St. Louis***

# Leiomyosarcoma of the Rectum With Hepatic Metastasis

## *Case Report*

**In view of the rarity of leiomyosarcoma of the rectum and as an argument for aggressive surgical approach for a metastatic leiomyosarcoma of the liver, the authors present a case report of hepatic metastasis of rectal leiomyosarcoma with a review of the literature. A successful hepatic lobectomy on the right side was performed in this case. The patient lived four and one half years after the hepatic resection. Dr. Lee was Chief Resident at the time this paper was written and Dr. Frederick is Chief of the Surgical Department, Deaconess Hospital. Dr. Lee is now practicing surgery in Havana, Ill.**

LEIOMYOSARCOMA OF THE RECTUM is a rare, smooth muscle tumor. The first case was reported in 1881. Since then, a little more than 100 cases have been recorded in literature, mostly as single cases.[1-5]

This is the case report of a 49-year-old woman who came to us with hepatic metastasis seven years after an abdominoperineal resection for a low-grade leiomyosarcoma in the rectum. A right hepatic lobectomy was accomplished in an attempt to increase longevity. This patient lived four and one half more years after a rather aggressive surgical approach.

### CASE REPORT

This 49-year-old white woman was admitted to Deaconess Hospital with a rather sudden onset of an enlarged mass in the right upper quadrant of the abdomen on Jan. 7, 1972.

At the age of 42, this patient underwent an abdominoperineal resection for a leiomyosarcoma in the submucosal region of the rectum. Seven years after the operation, however, she began to have pain in the right subcostal region and the lower portion of her right chest. On several occasions, multiple studies were inconclusive; however, one week prior to admission, she presented with a large swollen mass in the right upper quadrant of the abdomen with continuing exacerbating symptoms. Her appetite had been normal and there had been no weight loss.

She was well-developed and well-nourished and in no acute distress. The temperature was normal; blood pressure was 140/80. The heart and lungs were normal. Examination of the abdomen revealed the presence of a very large, tender, smooth mass which was felt to be consistent with the liver. The mass descended about 4 inches below the right subcostal margin. A perineal examination showed no evidence of local recurrence.

Results of laboratory studies showed normal urinalysis; hematocrit, 40.5%; hemoglobin, 13.8 gm/100 ml; protime, 14.5 sec (control, 12.5 sec).

SMA 12 showed slight elevation of lactic dehydrogenase (LDH), but otherwise it was normal.

A chest x-ray was normal except for elevation of the right hemidiaphragm. A barium enema via colostomy was interpreted as normal. An upper gastrointestinal study showed anterior displacement of the stomach. A liver scan with technicium-99 revealed the presence of an enormous mass occupying the entire right lobe of the liver, and the left lobe appeared to have normal concentration of the radioisotope.

An exploratory laparotomy was performed. A large cystic mass involving the entire right lobe of the liver was encountered but the left lobe was visibly and palpably free of tumor. A careful search demonstrated that there was no evidence of other metastatic lesions. A needle biopsy showed metastatic leiomyosarcoma. By aspiration, 1,500 cc of old blood were obtained from the cystic tumor. Then a right hepatic lobectomy on the right side was accomplished via thoracoabdominal incision.

The patient's postoperative course was complicated with the development of phlebothrombosis in the left leg, necessitating phlebothrombectomy. After a two-week period of a relatively stormy course, the patient recovered. However, a year later, the patient presented again with soft-tissue metastasis to the abdominal wall and the right thigh which were completely excised. Subsequently, the patient remained free of evidence of malignancy for over a year until January, 1975 when the patient developed recurrent leiomyosarcoma in the right thigh. Since then, she had had multiple courses of triple chemotherapy with adriamycin, cytoxan and methotrexate. She died on June 29, 1976 with disseminated disease.

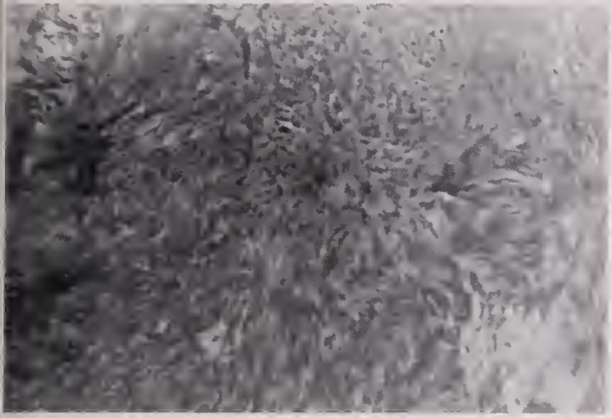

Fig. 1 Moderately well differentiated leiomysosarcoma (hepatic metastasis). (Medium power view)

### Gross Appearance

The right lobe of the liver, including the gall bladder and a huge cystic tumor, weighed 1,255 gm in addition to 1,500 cc of old blood and measured 18 cm × 16 cm × 11 cm in size. Most of the specimen was comprised of a cyst measuring 15.5 cm × 15.5 cm in diameter and filled with bile-stained old blood. The wall of the cyst includes tumorous tissues with a thickness of 2.5 cm (Figs. 1 & 2).

### Microscopic Findings

The tissues demonstrate a moderately well differentiated leiomyosarcoma with neoplastic smooth muscle cells having a whorled, tangled appearance. The cells have enlarged clumping and nucleoli.

Mitotic activity is quite frequent with some high power fields manifesting four to five mitoses. The neoplasm is quite vascular, showing an extensive interstitial hemorrhage forming large hemorrhagic lakes, and there are extensive necrosis. The large cystic structure is lined by dense collagenous connective tissue (Fig. 3).

### Discussion

Smooth muscle neoplasms of the gastrointestinal tract is an uncommon tumor, representing 1.0% of all tumors of gastrointestinal tract.[6] In the series of Anderson Dockerty and Buie (1950),[7] 65% of those tumors were encountered in the stomach, 25% in the small bowel, 3% in the colon and 7% in the rectum. The majority of smooth muscle tumors in the stomach are benign, whereas approximately one half of those in the rectum are malignant. Leiomyosarcoma of the rectum is a rare and highly malignant lesion. Those authors also reported that the incidence of rectal leiomyosarcoma is one to two among 8,000 rectal tumors. According to Diamante and Bacon (1976),[5] the incidence is 0.1% and Somervell and Mayer (1971)[4] recorded an incidence of one in 1,300 rectal tumors or .08%.

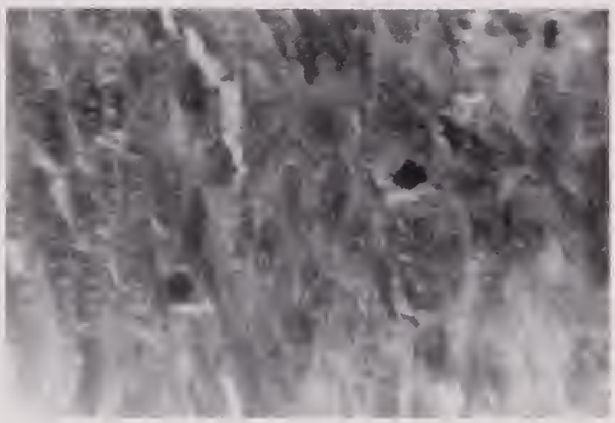

Fig. 2 Mitotic figures (rectum). (High power view)

Fig. 3 Hepatic metastasis from leiomysosarcoma of the rectum. (Low power view)

The most common symptoms of rectal leiomyosarcoma are constipation, rectal pain, rectal bleeding and general manifestations, such as anorexia and loss of weight.

Microscopically, it may be very hard to differentiate sarcoma from benign leiomyoma. Helpful criterias for the diagnosis of malignancy include (a) hypercellularity, (b) hyperchromasia and pleomorphism of nuclei and (c), especially, the presence of increased numbers of mitotic figures. The presence of more than two mitotic figures per average highpower field may in itself justify a diagnosis of leiomyosarcoma.

Malignant transformation of benign leiomyoma is still controversial. Neuman[8] reported a rectal leiomyosarcoma arising at the site of a leiomyoma which had been removed seven years previously.

Authors generally report that these tumors are of slow evolution and late to metastasize. Lymphatic spread is rare. These tumors are characterized by high local recurrence after excision. Diamonte and Bacon (1967)[5] estimate 86% recurrence after local excision. These tumors spread late via venous channels to distant organs such as the lung, liver, brain and bone. The most common site of distant metastases is the liver followed by the lung and brain.

It is generally agreed that abdominoperineal resection is the treatment of choice for rectal leiomyosarcoma regardless of the grade of malignancy. Some authors report that a wide local excision may be adequate if the lesion is less than 2 cm in diameter, submucosal and pedunculated. Radiotherapy has been of no value.

Statistics regarding prognosis are inconclusive. Morson (1960)[9] reported the survival rate to be reasonably good for well differentiated tumors. In general, these tumors exhibit a definite tendency toward slow growth and a better longevity than carcinoma. Some patients may survive for years even if metastases have been demonstrated. However, most agree that the overall prognosis is poor. A radical initial surgical treatment is recommended.

There have been no previous reports of leiomyosarcoma originating from the rectum, metastasizing to the liver and being treated by hepatectomy. We could find few instances of hepatic resection for metastatic leiomyosarcoma to the liver. Bowen and Murphy[10] performed a right hepatic lobectomy for a large metastatic lesion from a primary intra-abdominal sarcoma and Brunschwig[11] carried out a hepatectomy which was primary in the uterus. Kerschner and Matsuda[12] each reported a case of hepatic resection; in the one, it was primary in the stomach and in the other, it was from the ascending colon.

In our case, hepatic resection was necessary for several reasons: first, the extreme thoracoabdominal pain due to the rapidly expanding lesion; second, as one of the important reasons, eradicating the life threatening complication which might ensue if the hemorrhagic tumorous mass had spontaneously ruptured; and third, prolongation of the life. Since there was a relatively long interval after the apparent control of the primary lesion and both, the tumor was well differentiated and solitary.

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# In Memoriam

**Jacob P. Farney,** M.D., 6700 Troost Ave., Ste. 240, Kansas City 64131; a graduate of University of Kansas, 1938; member of Jackson County Medical Society; age 66; died April 2, 1978.

**James L. Mayfield,** M.D., Box 50, Crystal City 63019; a graduate of Washington University School of Medicine, 1943; member of Jefferson County Medical Society; age 60; died May 7, 1978.

**E. Warren Allen,** M.D., 1411 N. Jefferson, Carrollton 64633; a graduate of Tulane University School of Medicine, 1947; member of Grand River Medical Society; age 54; died May 9, 1978.

**Maurice J. Lonsway,** M.D., 8025 Dale Ave., St. Louis 63117; a graduate of St. Louis University School of Medicine, 1914; member of St. Louis Medical Society; age 88; died May 23, 1978.

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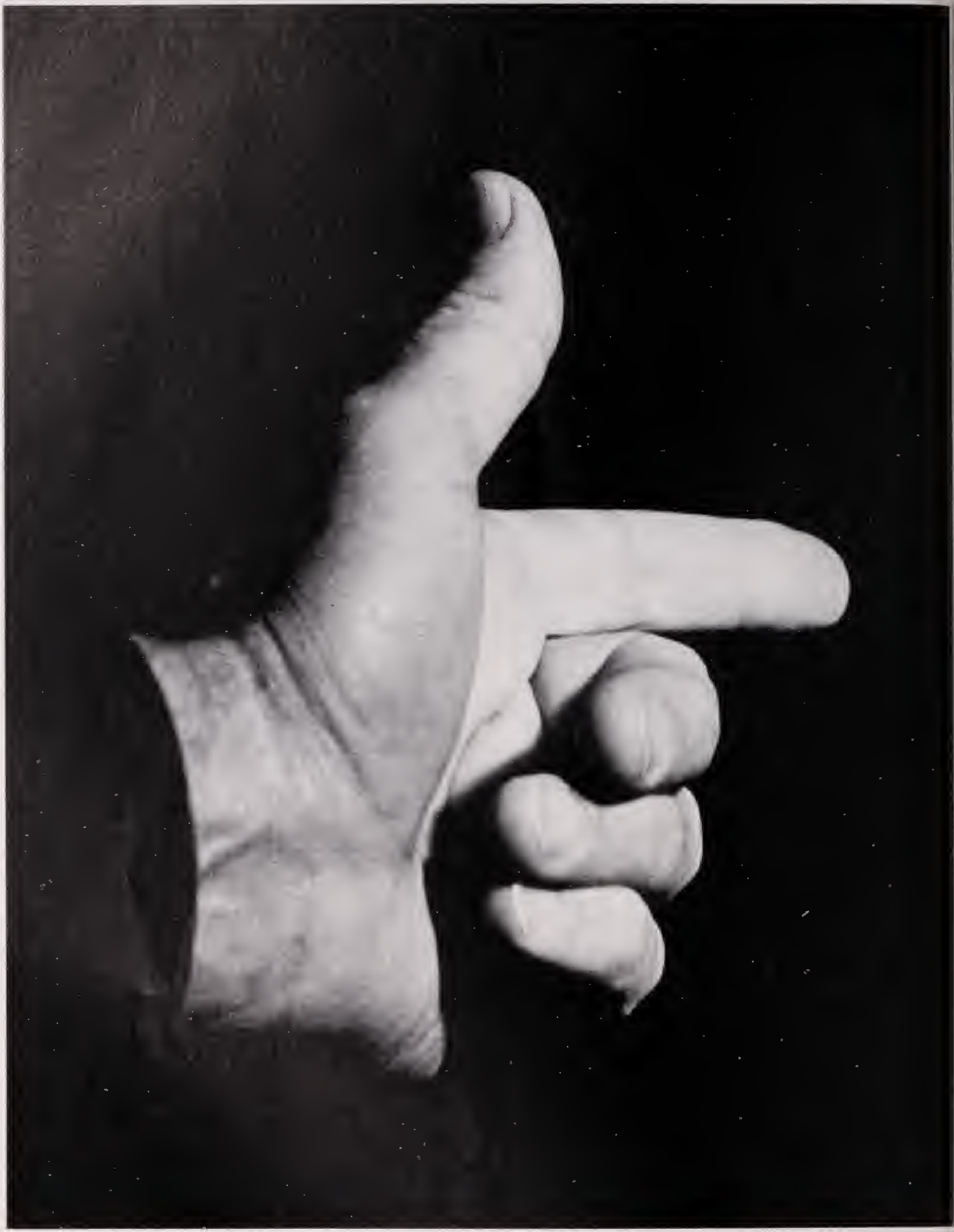
Photo-Comment by James W. Clawson, M.D., Springfield



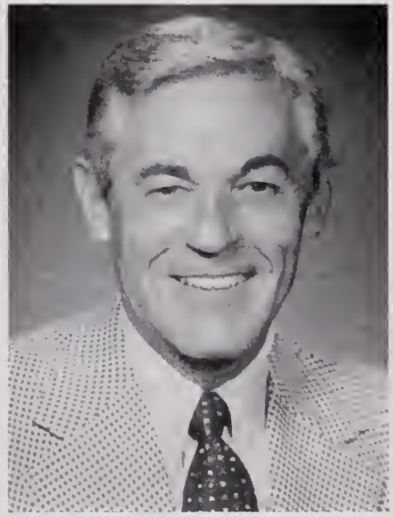
When Mr. C. pointed his finger at us, three of them were pointing right back at him!

# President's Message

*In every generation there has to be some fool*
*who will speak the truth as he sees it.*
—Boris Pasternak

## SECOND OPINION

Since President Carter has given his opinion of our profession and his Secretary of HEW is such a believer in second opinions, now is the time for each of *us* to render a second opinion . . . not to the bureaucrats, but to our patients and to our legislators. Only through better communication can we hope to improve the public's perception of our profession.


John N. Martin, M.D.

In our lifetime, one has great loves. One of mine is my profession, and one that is not is the federal bureaucrat.

It seems to me that the President slapped us in the face, and it does not seem that now is the time to turn the other cheek. No, it's really time for you to give the second opinion in a sincere, straightforward, honest way—the same way you discuss with your patients their health problems.

The public expects this of you and so does your profession.

So, Mr. President, our profession will be glad to cooperate if you will communicate, but if you want to regulate, that, Sir, will require a second opinion.

Bertrand Russell said, "The only thing that will redeem mankind is cooperation."

*When a man points a finger at*
*someone else, he should*
*remember that four of his*
*fingers are pointing at himself.*
—Louis Nizer

# MSMA Auxiliary

## ISYOURWIFEAMEMBER?

Although the above question started out in life as five separate words, it has developed into a one-word-question in the minds of active, dedicated members of the MSMA Auxiliary.

It was used in this way on the Auxiliary page of the *Journal of the Kansas Medical Society* several years ago and I thank the author of that page for presenting this question so cleverly. As she states, ISYOURWIFEAMEMBER is her "built-in recording" that is always triggered by the word, *membership*. We now extend it to ISYOURSPOUSEAMEMBER?

**Mrs. A. J. Campbell**
**President**

Our Auxiliary activities are based on so many vital words, such as health education projects on the community and statewide levels (immunization of children, Heimlich Maneuver, CPR); all medical legislative concerns, including MMPAC and AMPAC; service; and support of both MSMA and AMA student loan funds.

However, the success of these and all other Auxiliary activities is dependent upon the word, *membership*. As you know, it is the *members* who put these words into action, give them life and enthusiastically produce visible results and benefits for the recipients of the projects and, equally important, the true image of medicine. It is the Auxiliary that provides opportunities for hundreds of *members* to fill these needs in their own communities and, also, to stand ready at all times to assist the MSMA in any way needed.

We are striving to increase the MSMA Auxiliary membership. Please compare the MSMA membership of 5,500 with the present Auxiliary membership of slightly more than 1,500. (I absolutely refuse to believe that there are 3,500 bachelor-physicians in the MSMA!)

The Auxiliary membership must be increased in order to increase our ability to assist the MSMA and we respectfully solicit your help. If, for some reason, your spouse has not been reached with an invitation to join her county medical auxiliary or as a member-at-large, please drop me a note (1500 West 16th Street, Sedalia 65301) and I will consider it a privilege to make the contact. Your recommendation will be invaluable and will show your personal interest in her participating in the MSMA Auxiliary in support of the MSMA and your profession.

Our goal for 1978 is to always have the above question answered with "YESMYSPOUSEISAMEMBEROFTHEAUXILIARY!"

# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D., ST. JOSEPH

### Buchanan County Medical Society

For the 26th consecutive year, members of the Buchanan County Medical Society met jointly with the Northwest (Mo.) Dental Society for a dinner meeting and program at the Swiss Chalet in St. Joseph.

Presiding jointly were Dr. Edmund W. Kline, President of the Medical Society, and Dr. H. Ned Sutherland of Bethany, President of the Dental Society.

The speaker for the event was Dr. Patricia Randolph, a faculty member at the University of Missouri-Kansas City School of Dentistry, who discussed "Current Controversies in Nutrition."

Sixty physicians and dentists attended the meeting.

Dr. H. W. Fricke, Jr., Dental Society program chairman, introduced the speaker.

R. Philip Acuff, M.D., *Secretary*

## SECOND DISTRICT

COUNCILOR
JOHN W. WALTERSCHEID, M.D.,
HANNIBAL

### Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on the evening of May 11 in the Library Conference Room at Woodland Hospital in Moberly. Dr. R. V. Tompson, President, presided.

Those attending the meeting were Drs. Antonio Aguilera, W. D. Chute, C. C. Cohrs, J. Will Fleming, Jr., T. S. Fleming, L. E. Huber, G. R. Hudson, C. H. Lin, E. S. Lin, H. T. Lin, Ruel Miciano and R. V. Tompson of Moberly; F. A. Barnett, Paris; J. E. Campbell, Macon; and P. V. Dreyer, Huntsville.

Dr. Cohrs, a Delegate to the MSMA, reported on the recent MSMA Annual Session in Kansas City. He mentioned some of the discussions and the pro and con attitudes toward various resolutions which were presented for discussion.

The speaker for the evening was Dr. J. Regan Thomas of Columbia who spoke on "Facial Plastic Surgery." He opened his discussion with the time honored cliché, "You can't make a silk purse from a sow's ear," to emphasize the difficulties encountered in plastic surgery of the face

Dr. Thomas illustrated his talk with slides showing various facial lesions, both malignant and benign, wounds of the face, scars and congenital deformities which are amenable to correction by plastic surgery. Several cases were shown in which cosmetic surgery had markedly improved the appearance of the patient.

The various surgical techniques used in plastic surgery were discussed and he described in some detail the use of skin grafts in many types of plastic procedures used on the face.

A number of before-and-after color slides illustrated some remarkable results in the management of many different problems of the face by plastic surgery.

A question and answer period followed.

The meeting was adjourned at 8:15 p.m.

G. R. Hudson, M.D., *Secretary*

## EIGHTH DISTRICT

COUNCILOR
WALTER A. GERMAN, M.D., SPRINGFIELD

### Jasper County Medical Society

The annual installation banquet of the Jasper County Medical Society was held for members and guests on May 9 at Broadview Country Club in Joplin.

Howard J. McAlhany of Springfield, Immediate Past-President of the Missouri State Medical Association, was the guest speaker.

Dr. M. A. S. Hallaba was installed as President for 1978-1979 by outgoing President Andrew J. Fritsch, M.D. Other new officers include Dr. Robert L. Willcoxon, President-Elect; Dr. Edward M. Grim, Vice-President; Dr. Frank I. Clark, Secretary-Treasurer and Councilor; Dr. Jim D. Frogge, Councilor; and Dr. Fritsch, Censor.

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# New Members

**Mary B. Ames,** M.D., VA Hospital, 800 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Ames is a native of Seaside, Ore., received her preliminary education at Oregon State University and her M.D. degree at the University of Oregon Medical School in 1947. She specializes in neurology.

**George David Amromin,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Amromin is a native of Gomel, Russia, received his preliminary education at Northwestern University and his M.D. degree at Northwestern University Medical School in 1943. He specializes in pathology.

**Dewey Philip Ballard,** M.D., Thompson Brumm Knepper Clinic, St. Joseph 64502, has become a member of Buchanan County Medical Society. Dr. Ballard is a native of Louisville, Ky., received his preliminary education at the University of Louisville and his M.D. degree at the University of Kentucky in 1974. He specializes in internal medicine.

**John H. Bauer,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Bauer is a native of Philadelphia, Pa. received his preliminary education at State University of New York and his M.D. degree at Jefferson Medical College of Pennsylvania in 1969. He specializes in nephrology.

**James A. Bohan,** M.D., Family Medical Care Center, University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Bohan is a native of Aledo, Ill., received his preliminary education at Iowa State University and his M.D. degree at Southern Illinois University in 1976. He specializes in family practice.

**Charles Stephen Brooks,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Brooks is a native of Springfield, received his preliminary education at Southwest Missouri State College and his M.D. degree at the University of Missouri-Columbia in 1968. He specializes in nephrology.

**Juan M. Castro,** M.D., 7943 Big Bend Blvd., St. Louis 63119, has become a member of St. Louis County Medical Society. Dr. Castro is a native of Pampanga, Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1956. He specializes in internal medicine.

**David Owen Catron,** M.D., One Mile Road, Dexter 63841, has become a member of SEMO County Medical Society. Dr. Catron is a native of Mt. Vernon, Ill., received his preliminary education at the University of Illinois and his M.D. degree at Baylor College of Medicine in 1974. He specializes in family practice.

**Chil Kwang Chang,** M.D., Eastgate Bldg., Columbia 65201 has become a member of Boone County Medical Society. Dr. Chang is a native of Tonghwa-Sung, Manchuria, received his preliminary education at Kyungpook University and his M.D. degree at Kyungpook University in 1964. He specializes in anesthesiology.

**Milamari A. Cunningham,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Cunningham is a native of Cody, Wyo., received her preliminary education at the University of Missouri-Columbia and her M.D. degree at the University of Missouri-Columbia in 1975. She specializes in anesthesiology.

**Walter E. Dean,** M.D., Highway 71 South, Maryville 64468, has become a member of Northwest Missouri County Medical Society. Dr. Dean is a native of Carlsbad, N. M., received his preliminary education at Drake University and his M.D. degree at the University of Iowa in 1975. He specializes in family practice.

**Clarence Lea Delany,** M.D., 1103 Alaska Ave., West Plains 65775, has become a member of South Central County Medical Society. Dr. Delany is a native of Jackson, La., received his preliminary education at Millsaps College and his M.D. degree at the University of Mississippi in 1959. He specializes in radiology.

**Robert Rudolph Demeo,** M.D., 666 Lester, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. DeMeo is a native of Brooklyn, N. Y., received his preliminary education at St. Francis College and his M.D. degree at Georgetown University in 1971. He specializes in ophthalmology.

**John Thoburn Dundee,** M.D., St. Francis Hospital, Maryville 64468, has become a member of Northwest Missouri Medical Society. Dr. Dundee is a native of Belfast, N. Ireland, received his preliminary education at Campbell College and his M.D. degree at Queen's University in 1963. He specializes in diagnostic radiology.

**Eugene E. Fibuch,** M.D., St. Luke's Hospital, 44th and Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Fibuch is a native of St. Paul, Minn., received his preliminary education at the University of Minnesota and his M.D. degree at Creighton University in 1970. He specializes in anesthesiology.

**James Alvin Freeman,** M.D., 113 W. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Freeman is a native of Stewartsville, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1969. He specializes in cardiology.

**Harvey F. Howitt,** M.D., 3205 Lansing Ave., Columbia 65201, has become a member of Boone County Medical Society. Dr. Howitt is a native of Bronx, N. Y., received his preliminary education at Hobart College and his M.D. degree at the University of Missouri in 1973. He specializes in ophthalmology.

**James J. Jenkins,** M.D., 216 S. Kingshighway, St. Louis 63110, has become a member of St. Louis County. Dr. Jenkins is a native of Long Beach, Calif., received his preliminary education at Duke University and his M.D. degree at the University of North Carolina in 1970. He specializes in anesthesiology.

**Lalitha Kosuri,** M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Kosuri is a native of India, received her preliminary education at S.R.R. & C.V.R. College and her M.D. degree at Guntur Medical College in 1966. She specializes in internal medicine.

**Alfred Llorens,** M.D., 807 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Llorens is a native of New York, N. Y., received his preliminary education at the University of Virginia and his M.D. degree at the University of Virginia in 1956. He specializes in gynecology.

**Robert McDavid,** M.D., 203 W. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. McDavid is a native of Ironton, received his preliminary education at the University of Missouri at Rolla and Columbia and his M.D. degree from the University of Missouri-Columbia in 1972. He specializes in obstetrics and gynecology.

**Willie O. McLemore,** M.D., University of Missouri School of Medicine, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. McLemore is a native of McGregor, Ga., received his preliminary education at Central State University and Iowa State University and his M.D. degree at the Howard University College of Medicine in 1974. He specializes in internal medicine.

**Michael H. Metzler,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Metzler is a native of New York City, N. Y., received his preliminary education at the University of Massachusetts and his M.D. degree at Albany Medical College in 1972. He specializes in general surgery.

**Raj N. Mohapatra,** M.D., 12561 Amersham Ct., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Mohapatra is a native of Balasore, India, received his preliminary education at Ravenshaw College and his M.D. degree at Sriram Chandra Bhanj Medical College in 1958. He specializes in urology.

**David L. Moore,** M.D., 4400 Broadway, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Moore is a native of Springfield, received his preliminary education at Drury College and Washington University and his M.D. degree from the University of Missouri-Kansas City in 1975. He specializes in oral and maxillofacial surgery.

**Alan D. Morris,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Morris is a native of Lincoln, Neb., received his preliminary education at Nebraska State College and Colorado State College and his M.D. degree at Northwestern University in 1960. He specializes in rheumatology.

**Mark C. Myron,** M.D., 8300 Troost Ave., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Myron is a native of New York, received his preliminary education at the University of Michigan and his M.D. degree at the University of Missouri-Columbia in 1972. He specializes in internal medicine.

**Karl D. Nolph, M.D.,** University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Nolph is a native of Brookville, Pa., received his preliminary education at Franklin and Marshall College and his M.D. degree at the University of Pennsylvania in 1963. He specializes in nephrology.

**Perry B. Oskin, Jr.,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Oskins is a native of Indianapolis, Ind., received his preliminary education at Indiana University and his M.D. degree at Indiana University in 1971. He specializes in pathology.

**Erich W. Pollak,** M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Pollak is a native of Steyr, Austria, received his preliminary education at A. V. Acevedo Institute and his M.D. degree at University of the Republic in Montevideo, Uruguay in 1960. He specializes in general surgery.

**William H. Quayle,** M.D., 3205 Lansing Ave., Columbia 65201, has become a member of Boone County Medical Society. Dr. Quayle is a native of Cleveland, Ohio, received his preliminary education at Yale University and his M.D. degree at the University of Missouri in 1973. He specializes in ophthalmology.

**Michael Isaac Sorkin,** M.D., TD 4-E 226, University of Missouri Medical Center, Columbia 65201, has become a member of the Boone County Medical Society. Dr. Sorkin is a native of Madison, Wis., received his preliminary education at Northwestern University and his M.D. degree at Northwestern University in 1966. He specializes in nephrology.

**John Charles Van Stone,** M.D., TD 4-E, University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Van Stone is a native of Oak Park, Ill., received his preliminary education at the University of Illinois and his M.D. degree at Northwestern University in 1966. He specializes in nephrology.

**Renato G. Villafuerte,** M.D., 1116 Cantina Dr., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Villafuerte is a native of the Philippines, received his preliminary education at San Beda College and his M.D. degree from University of Santo Tomas in 1966. He specializes in pathology.

**Marc K. Wallack,** M.D., 4960 Audubon Ave., St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Wallack is a native of Philadelphia, Pa., received his preliminary education at Albright College and his M.D. degree at the University of Pittsburgh in 1970. He specializes in general surgery and is a surgical oncologist.

**Virginia V. Weldon,** M.D., 500 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Weldon is a native of Toronto, Canada, received her preliminary education at Smith College and her M.D. degree at the University of Buffalo in 1962. She specializes in pediatrics.

**Frederick C. Whittier, Jr.,** M.D., University of Missouri Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Whittier is a native of Hackensack, N. J., received his preliminary education at the University of Pittsburgh and his M.D. degree at Loyola University in 1965. He specializes in nephrology.

**Donald Withrow,** M.D., 11636 Administration Dr., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Withrow is a native of South Charleston, W. Va., received his preliminary education at Morris Harvey College and his M.D. degree at West Virginia University in 1973. He specializes in pathology.

**David G. Wood,** M.D., 340 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Wood is a native of Alexandria, La., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1973. He specializes in radiology.

**Samuel D. Yankasammy,** M.D., Menorah Medical Center, 4949 Rockhill Rd., Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Yankasammy is a native of Madras, India, received his preliminary education at the University of Nebraska and his M.D. degree at Johannes Gutenberg University, West Germany in 1965. He specializes in general surgery.

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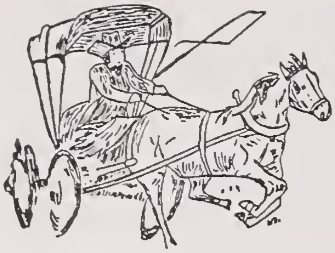

# Missouri Medicine in Review

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

The Bates County Medical Society met in the City Council Room in Butler on March 15, 1938 with the President, Dr. C. J. Allen of Rich Hill, presiding. The following officers were elected: President, Dr. E. E. Robinson, Adrain; Secretary-Treasurer, Dr. Charles A. Lusk, Jr., Butler; Delegate, Dr. T. J. Halsey, Butler; Alternate, Dr. Lusk.

The Jasper County Medical Society was called to order by the President, Dr. B. E. DeTar, at the Connor Hotel in Joplin on April 12. The application for membership of Dr. Leroy Simmons, Sarcoxie, was approved and he was elected to membership. Dr. Lloyd B. Clinton, Carthage, reported that WPA officials were requesting that eight blank forms be filled out for charity cases in Carthage and that he had refused the request.

Members of the Stoddard County Medical Society met on March 29. The following officers were elected: President, Dr. William J. Hux, Essex; Vice-President, Dr. S. S. Davis, Dexter; Secretary-Treasurer, Dr. Frank LaRue, Dexter; Delegate, Dr. T. L. Waddle, Dexter; and Alternate, Dr. W. C. Dieckman, Dexter.

Dr. James R. McVay, Kansas City, was elected President-Elect of the Missouri State Medical Association by the House of Delegates at the annual session in Jefferson City on May 2-4. He will be installed as President at the Excelsior Springs session in 1939. Dr. McVay was born in Spickard on June 5, 1891. He attended the Trenton High School where he graduated in 1908. He received his A.B. degree from the University of Missouri in 1912 and his M.A. degree in 1913. He received his M.D. degree from Johns Hopkins University in 1915.

## TWENTY-FIVE YEARS AGO

William B. McCunniff, M.D., reports the following:

"When Dr. Ephraim McDowell did the first laparotomy on a Sunday in December, 1809, the townspeople, having just heard a sermon on 'Murder,' were congregated outside the house, attempted to force the door, failed, had a rope strung over a limb of a tree, in his view, just in case. Despite the success of the operation (the patient lived for 32 years), local people shunned him, practically reduced him to destitution."

The Missouri Senate has confirmed James R. Amos, M.D., formerly of Springfield, as director of the Missouri Division of Health.

"Changes in Surgery During the Past Decade" is the subject of the fourth annual Dr. F. G. Thompson, Sr. Lectureship to be presented by Robert S. Dinsmore, M.D., Cleveland in St. Joseph on May 28.

## TEN YEARS AGO

A memorial fund honoring the late Dr. Arch E. Spelman, Smithville physician, will be established with funds contributed by the staff and faculty of the Medical Center and Missouri Regional Medical Program at the University of Missouri. Dr. Spelman founded Smithville Community Hospital in 1938.

The Edward Mallinckrodt, Jr. Foundation of St. Louis has pledged $500,000 to Washington University to endow a chair of physiology and biophysics at the School of Medicine. Carlton C. Hunt, M.D., a nationally known neurophysiologist, will become the first Edward Mallinckrodt, Jr. Professor of Physiology and Biophysics. Dr. Hunt came from Yale University in December, 1967 to join the Washington University faculty of medicine as head of the Department. At Yale, he served as chairman of the Department of Physiology.

Dr. Robert H. Felix, dean of the St. Louis University School of Medicine, and Dr. William H. Danforth, vice-chancellor for medical affairs at Washington University, have been appointed acting program co-directors of the Bi-State Regional Medical Program. Bi-State is one of 54 regions in the country being organized to develop health programs in the fields of heart disease, cancer, stroke and related diseases.

ROCHE

# For recurrent attacks of urinary tract infection in women

# Bactrim™ DS Double Strength Tablets

ach tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

## ust one tablet b.i.d. for 10 to 14 days

Action at urinary/vaginal/lower bowel sites helps liminate reservoirs of infecting organisms

Distinctive antibacterial action plus wide spectrum elps eradicate recurrent UTI

Low incidence of bacterial resistance in community ractice

- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

**efore prescribing, please consult complete product information, a summary of which follows:**

**Indications and Usage: For the treatment of urinary tract fections due to susceptible strains of the following organisms:** *Escherichia coli, Klebsiella-Enterobacter, Proteus irabilis, Proteus vulgaris, Proteus morganii.* **It is recommended at initial episodes of uncomplicated urinary tract infections e treated with a single effective antibacterial agent rather an the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

**Also for the treatment of documented *Pneumocystis arinii* pneumonitis. To date, this drug has been tested only in atients 9 months to 16 years of age who were immunosupressed by cancer therapy.**

The recommended quantitative disc susceptibility method *ederal Register, 37*:20527-20529, 1972) may be used to estiate bacterial susceptibility to Bactrim. A laboratory report of Susceptible to trimethoprim-sulfamethoxazole" indicates an infecon likely to respond to Bactrim therapy. If infection is confined to e urine, "Intermediate susceptibility" also indicates a likely reponse. "Resistant" indicates that response is unlikely.

**Contraindications:** Hypersensitivity to trimethoprim or sulnamides; pregnancy; nursing mothers; infants less than two onths of age.

**Warnings:** Deaths from hypersensitivity reactions, agranlocytosis, aplastic anemia and other blood dyscrasias have been ssociated with sulfonamides. Experience with trimethoprim is uch more limited but occasional interference with hematopoiesis as been reported as well as an increased incidence of thromopenia with purpura in elderly patients on certain diuretics, rimarily thiazides. Sore throat, fever, pallor, purpura or jaundice ay be early signs of serious blood disorders. Frequent CBC's re recommended; therapy should be discontinued if a signifiantly reduced count of any formed blood element is noted.

**Precautions:** Use cautiously in patients with impaired renal r hepatic function, possible folate deficiency, severe allergy or ronchial asthma. In patients with glucose-6-phosphate dehyrogenase deficiency, hemolysis, frequently dose-related, may ccur. During therapy, maintain adequate fluid intake and perform equent urinalyses, with careful microscopic examination, and enal function tests, particularly where there is impaired renal unction.

**Adverse Reactions:** All major reactions to sulfonamides and rimethoprim are included, even if not reported with Bactrim. *lood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblasic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, ypoprothrombinemia and methemoglobinemia. *Allergic reacons:* Erythema multiforme, Stevens-Johnson syndrome, eneralized skin eruptions, epidermal necrolysis, urticaria, serum ickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, eriorbital edema, conjunctival and scleral injection, photosensitiation, arthralgia and allergic myocarditis. *Gastrointestinal reacons:* Glossitis, stomatitis, nausea, emesis, abdominal pains, epatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

**Dosage: Not recommended for infants less than two months of age.**

*Urinary Tract Infections:* Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

*Children two months of age or older:*

| Weight | | Dose—every 12 hours | |
|---|---|---|---|
| lbs | kgs | Teaspoonfuls | Tablets |
| 20 | 9 | 1 teasp. (5 ml) | ½ tablet |
| 40 | 18 | 2 teasp. (10 ml) | 1 tablet |
| 60 | 27 | 3 teasp. (15 ml) | 1½ tablets |
| 80 | 36 | 4 teasp. (20 ml) | 2 tablets or 1 DS tablet |

For patients with renal impairment:

| Creatinine Clearance (ml/min) | Recommended Dosage Regimen |
|---|---|
| Above 30 | Usual standard regimen |
| 15-30 | ½ the usual regimen |
| Below 15 | Use not recommended |

*Pneumocystis carinii pneumonitis:* Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

**Supplied:** *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

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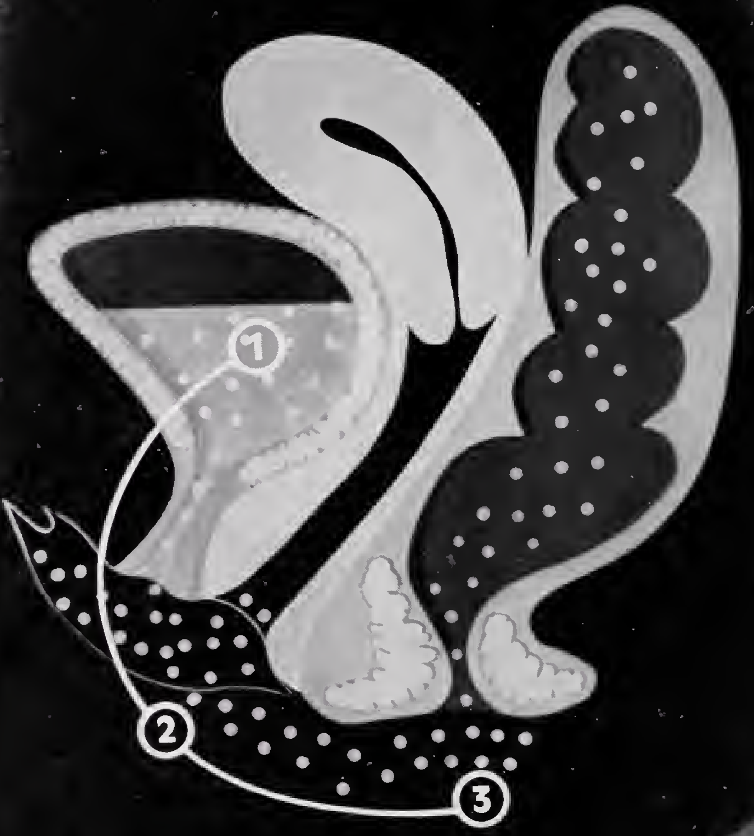
## Her next attack of cystitis may require

# the Bactrim™ 3-system counteratta



ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enter bacteriaceae* in the bowel without the emergence of re tant organisms. Thus, Bactrim reduces the risk of intr colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

# Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal trac

**Please see reverse side for summary of product information.**

# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

**JULY, 1978**
VOLUME 75, NUMBER 7

## *Special Report:*

## ACTIONS and EVENTS
## of the
## Missouri State Medical Association

[illegible]

## 120th
## ANNUAL SESSION

*See Contents on Page 297*

**121st MSMA Annual Session**
**April 19-22, 1979, St. Louis**

# Front Runner

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# HYTONE® 2½% Cream

## (hydrocortisone)

**for rapid control of the majority of inflammatory dermatoses seen in office practice — a logical alternative to the fluorinated steroids.**

Followed by HYTONE® 1% or 1/2% Cream, for maintenance therapy and ultimate control.

**Description**: Hydrocortisone ½% 1% or 2½% in a water washable cream containing purified water, propylene glycol glyceryl monostearate cholesterol and related sterols isopropyl myristate polysorbate 60 cetyl alcohol sorbitan monostearate polyoxyl 40 stearate and sorbic acid

**Action**: Topical steroids are primarily effective because of their anti-inflammatory antipruritic and vasoconstrictive actions

**Indications**: For relief of the inflammatory manifestations of corticosteroid-responsive dermatoses

**Contraindications**. Topical steroids are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparation

**Precautions**: If irritation develops the product should be discontinued and appropriate therapy instituted

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted If a favorable response does not occur promptly the corticosteroid should be discontinued until the infection has been adequately controlled

If extensive areas are treated or if the occlusive technique is used there will be increased systemic absorption of the corticosteroid and suitable precautions should be taken particularly in children and infants

Although topical steroids have not been reported to have an adverse effect on human pregnancy the safety of their use in pregnant women has not absolutely been established In laboratory animals increases in incidence of fetal abnormalities have been associated with exposure of gestating females to topical corticosteroids in some cases at rather low dosage levels Therefore drugs of this class should not be used extensively on pregnant patients, in large amounts or for prolonged periods of time

The product is not for ophthalmic use

**Adverse Reactions**: The following local adverse reactions have been reported with topical corticosteroids especially under occlusive dressings burning itching irritation dryness folliculitis hypertrichosis acneform eruptions hypopigmentation perioral dermatitis allergic contact dermatitis maceration of the skin secondary infection skin atrophy striae miliaria

**Dosage and Administration**. Apply to affected areas 3 or 4 times daily

**How supplied**: 2½% — Tube 1 oz 1% and ½% — Tube 1 oz and Jar 4 oz

**Caution**: Federal law prohibits dispensing without prescription

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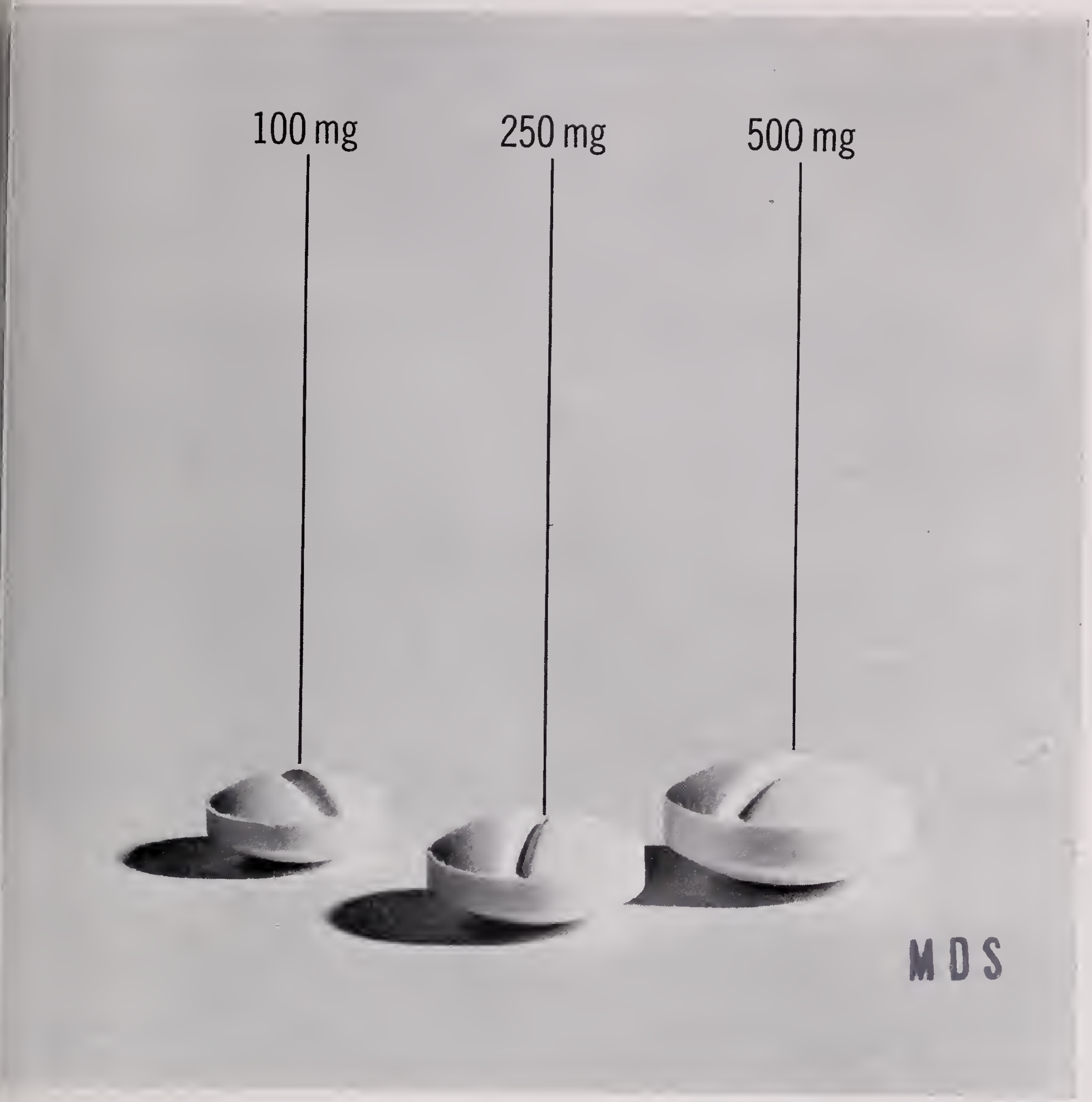

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Afternoon Session: 1:30-5:00 P.M.
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Registration: 8:30-9:00 A.M.
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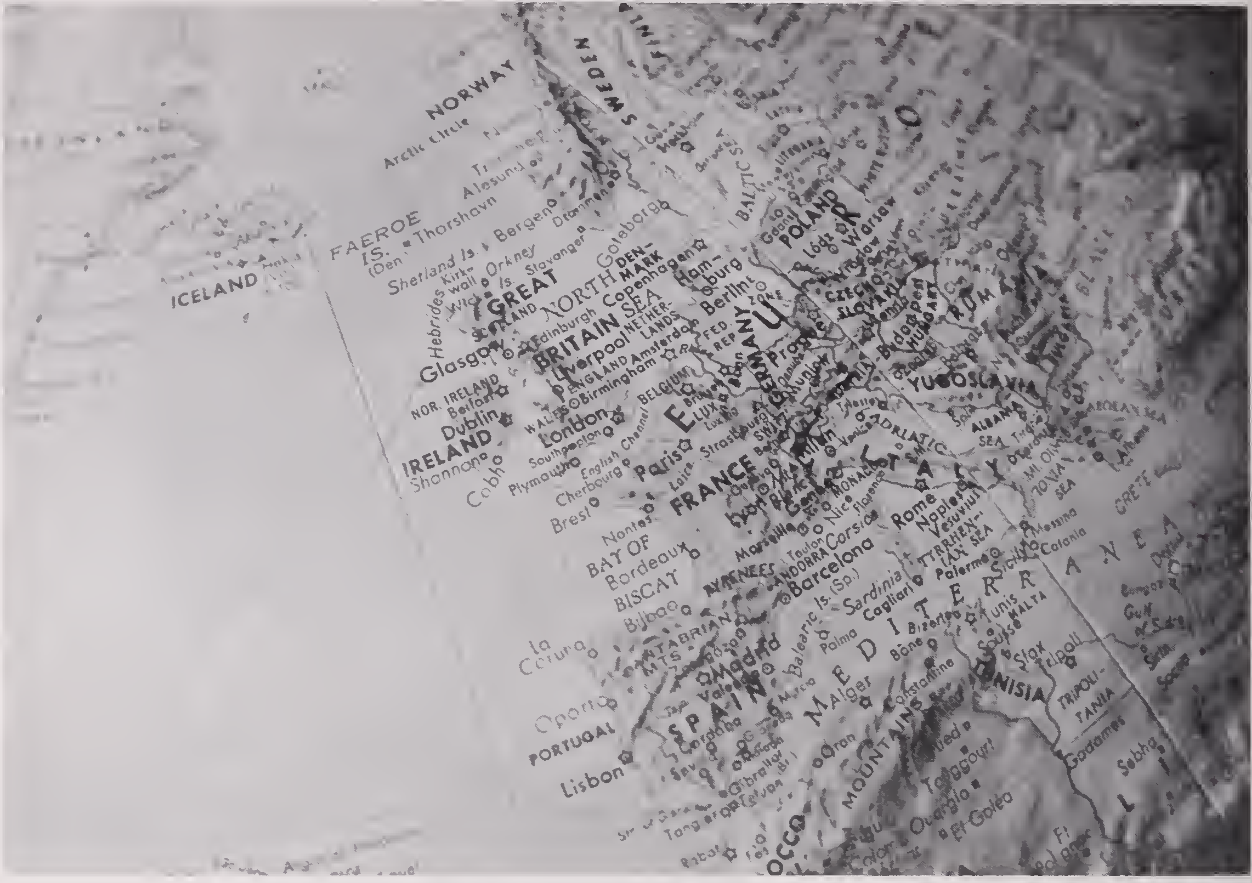
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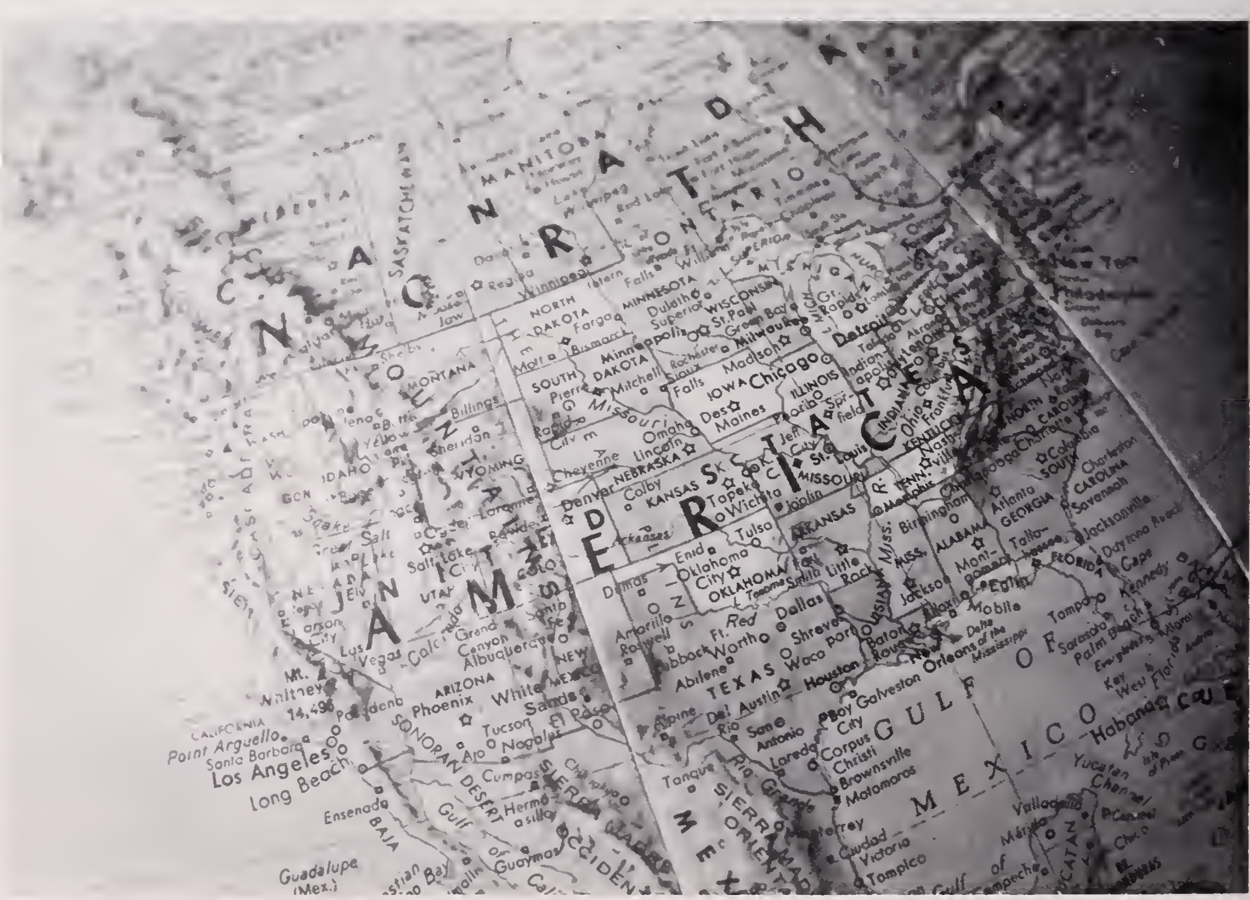
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the "war on poverty" cured poverty.

# Editor's Corner

## TRY IT! MAYBE YOU'LL LIKE IT

Would you enjoy a surprise? Are you the sporting sort? If so, read this!

It just might be very interesing for you to poll your patients and determine what they think of you, your office assistants and the office itself.

Our office did this. We were humbled by some replies, pleased by others. But we did learn about ourselves. For a month, we handed every tenth departing patient a questionnaire and a stamped return envelope. About 75% of the questionnaires were returned. This idea was not original with us. But some of the replies were very original.

Of course, there was some of the inevitable nonsense to be sifted out; some thought the waiting room was too hot, others too cold. However, we did get many thoughtful comments about our operation. We made some changes resulting from those comments. In other areas, we felt reassured in doing what we already thought was right. Perhaps the most repeated and revealing comment was one of surprise that we seemed to care what the patient thought.

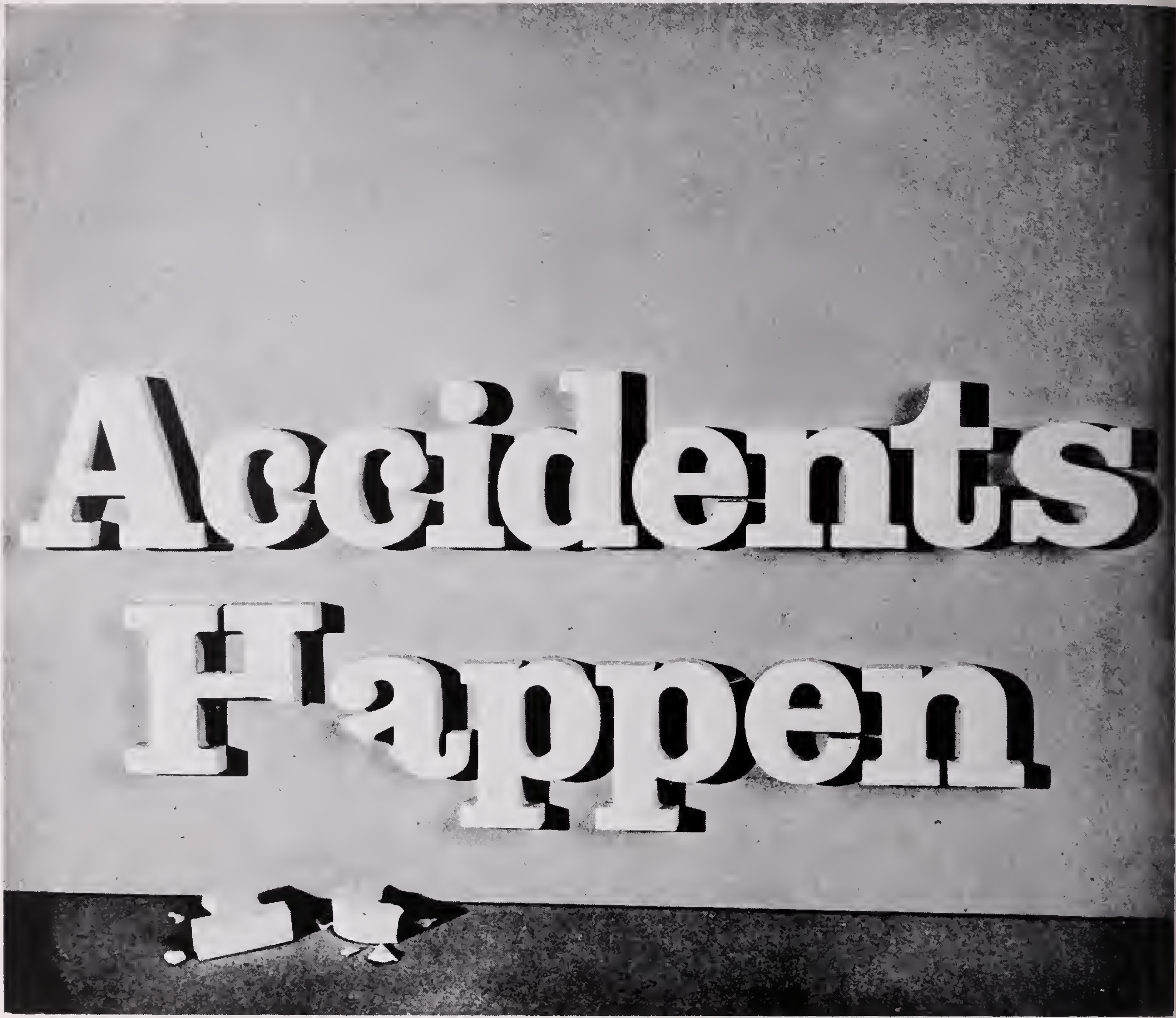
This expression made us reflect that the doctor in private practice has been most favored. He has enjoyed a seller's market since the beginning of WW II. This span of years has included all the practice of the great majority of those of you who read this. You have never known the rigors of competition because your services have been so in demand that it was only necessary to unlock the door and stand out of the way.

This is fine! I'm not knocking it! I am so happy I never experienced the old joke about the doctor who had two waiting rooms; he waited in one and nobody waited in the other. But, such abundance does cause us to become lax in some of the niceties of relationships with those who supply our daily bread. Historically, human nature can't handle prosperity too well.

So, if you start believing you are a little tin god, you just might make some effort to find out.

Would you enjoy a surprise?

**Wilfred E. Wooldridge, M.D.**



And when they do, they can be costly. That's why the MSMA sponsors an insurance plan for members . . . one that offers attractive coverage at a favorable price.

**Every five minutes, 24 hours a day, year in and year out, somebody loses his life in an accident—115,000 lives a year!**

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# Minutes of the House of Delegates

# 120th Annual Session

# Missouri State Medical Association

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MSMA

# NEWS ROUND - UP

July, 1978

## Interim Session schedule planned

The third Interim Session of the Missouri State Medical Association's House of Delegates will be held Nov.4-5, 1978, at the Ramada Inn in Cape Girardeau.

Component societies and members who wish to introduce Resolutions to be included in the Delegate's Handbook must send them to the MSMA Headquarters by Oct. 4. Handbooks will be mailed to Delegates around Oct. 9.

The schedule for the two-day meeting will be as follows: Delegate Registration will begin at 8:30 a.m., Saturday, Nov. 4. The Opening Session of the House is set for 11:30 a.m. Reference Committees will meet at approximately 12:30 p.m. and continue until testimony is completed. The Final Session of the House will begin at 7:30 a.m., Sunday, Nov. 5.

All members are invited to attend the Interim Session and testify before the Reference Committees.

## *Two Constitutional resolutions will be voted on during Interim*

Two resolutions requiring a change in the MSMA Constitution will be voted on by delegates at the Interim Session, November 4-5, 1978.

As stated in the Constitution, any constitutional change must be published prior to its submission to the House.

The first resolution amends the purpose of the MSMA to include negotiation and bargaining.

> *"The purpose of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, the organization of its membership for negotiation and collective bargaining purposes, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association."*

Following is the second constitutional resolution to be considered at the opening session of the House of Delegates. This resolution allows changes in the Constitution to be made during Interim as well as Annual Sessions.

> *"The House of Delegates may amend any article of the Constitution by a two-thirds vote of the delegates present and voting at any Annual or Interim Session, provided that such amendment shall have been presented in the previous open meeting of the House of Delegates and that the amendment shall have been published twice since the last Session of the House of Delegates in the Journal of the Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken."*

## Public relations workshop set for Oct. 7-8

A public relations workshop will be held in October in conjunction with the meetings of the MSMA Commission on Public Affairs and the Component Medical Society Representatives.

The institute will be held on October 7 and 8, 1978, at Tan-Tar-A at the Lake of the Ozarks. This workshop, which should help to determine physician and auxiliary interest in the public relations program, will stress the practical levels of involvement for local participation in communications.

Edward Annis, M.D., Miami, Florida, a past president of the AMA and a nationally known spokesman for medicine, will be the featured speaker at the workshop.

Any member who is interested in public relations and would like to be a media contact is invited to attend this institute.

## Physicians asked to search for inadequately immunized children

Missouri physicians in private practice are being asked by the state Division of Health to audit their records to identify children of preschool age with inadequate immunization levels.

The Division of Health will make available until October, 1979, single dose mumps/measles/rubella vaccine and single mumps vaccine, with needles and syringes. The physician receiving the vaccine without charge will be required to sign a form certifying receipt of the vaccine.

Physicians may also request postage-paid notification cards, which can be used as reminders to families whose children are in need of additional immunization.

If you would like supplies of vaccine or reminder cards, please write to the Bureau of Immunizable Diseases, Missouri Division of Health, Box 570, Jefferson City, MO 65102 or phone 314-751-2713.

The MSMA Auxiliary is actively involved in the campaign to raise the immunization levels of Missouri children.

The Auxiliary will distribute 100,000 Child's Immunization History Survey Cards in pocket posters in physician's offices throughout the state.

Special pamphlets encouraging immunization of newborn infants are being distributed by Auxiliary members to obstetric patients in 165 hospitals in Missouri.

In addition, 150,000 coloring books, which stress the advantages of immunization, are being provided for use by preschoolers in day care and nursery schools and in doctors' offices. The Auxiliary will make the coloring books available to physicians throughout the state.

# AMA House takes action on cost report, Missouri resolutions

The AMA's 127th Annual Convention in St. Louis, the last combined meeting of the House of Delegates and the Scientific Program, had a total registration of 12,372.

Tom E. Nesbitt, M.D., Nashville, Tenn., was installed as the AMA's 133rd president. In his inaugural address, Dr. Nesbitt called on individual physicians to "voluntarily restrain the rate of professional fee increases" in their own private practices.

Dr. Nesbitt urged each physician to moderate annual fee increase rates by just 1% in each of the next two years. He stressed that he was not asking the physician to suddenly make an across-the-board reduction in specific fees or specific services, since rising costs make periodic fee increases necessary.

The report of the AMA-sponsored National Commission on the Cost of Medical Care dominated sessions of the House, requiring 56 actions by the delegates. The House endorsed 29 of the 48 recommendations of the Commission and voted "that the greatest hope for cost containment in the provision of health care lies in strengthening price consciousness in the health care marketplace." Work will continue on the report.

The AMA House also took action on the three resolutions submitted by the MSMA.

The Missouri delegation to the AMA introduced a resolution opposing the concept of mandatory consultation. The AMA adopted a substitute resolution which states:

> *RESOLVED, That the House of Delegates of the American Medical Association adopt a policy statement on mandatory consultation as follows:*
>
> *"Recognizing that the advisability of survey or other specific therapy can be a matter of opinion, the House of Delegates of the American Medical Association (1) reaffirms the right of a patient or a physician to seek consultation freely with any consultant of his/her choice; (2) opposes the concept of mandatory consultation when required by a third party payor; (3) supports the concept that when consultation is required by a third party payor, the consultation should be at no cost to the patient; (4) opposes the concept of closed panels of consultants; and (5) supports the concept that if consultation is required by a third party payor, the patient should be allowed to choose a physician of his/her choice."*

Missouri introduced another resolution encouraging state and nationwide computerized donor registry. The AMA adopted the following amended resolution:

> *RESOLVED, That the American Medical Association approve the concept of computerized donor registration systems to identify available organs for transplantation.*

The third resolution submitted by Missouri delegates concerned cost of medical care and was adopted by the AMA House.

This resolution (1) recognizes and commends the Board of Trustees for creating the National Commission on the Cost of Medical Care; (2) calls on the Board to correct misunderstandings regarding the Report of the Commission; and (3) requests the Board to document and publicize the indirect and non-medical expenses that are contributing to the rising cost of medical care.

Detailed coverage of the actions of the AMA House of Delegates was published in the June 30-July 7 issue of *American Medical News.*

*The 'Singing Doctors' of Springfield received a special award during the AMA Annual Meeting in St. Louis. Robert B. Hunter, M.D. (left), chairman of the Board of Trustees, made the presentation to Drs. James T. Brown, the group's leader, Hal H. Lurie, Don F. Gose, F.T. H'Doubler, Jr., and Charles E. Lockhart. Drs. Frederick C. Coller and James R. Cook were unable to attend.*

# St. Louis Blue Shield Board increases public representation

The governing boards of the St. Louis Blue Shield Plan have been enlarged to provide for a majority of public representation.

Membership on the Plan's Board of Trustees was increased from 30 to 41, and membership on the Voting Board was raised from 91 to 121. All new members are public representatives. Formerly, the ratio of public to physician membership was one-third, two-thirds.

James B. Hughes, president of the Plan, said the composition of the boards had been under study for several years and the need to expand public participation in Blue Shield's policy making process was suggested by physician Trustees and unanimously supported.

Dr. James C. Sisk, St. Louis, was re-elected Chairman of the Board of Trustees at the organization's June meeting. Dr. Richard V. Bradley, St. Louis, was elected First Vice Chairman, and Dr. James C. Cope, Rocheport, was re-elected Second Vice Chairman.

# AMA offers plaque for physician's office

To help physicians educate patients about health care costs, the AMA has produced a special plaque which encourages patients to ask their doctors about fees.

The plaque reads, "I invite you to discuss frankly with me any question regarding my services or fees. The best medical service is based on a friendly mutual understanding between doctor and patient."

The plaque is available in desk and wall models at $5.50 and can be ordered from the AMA, P.O. Box 821, Monroe, Wisc. 53566.

### MMPAC Address Change

**The address of the Missouri Political Action Committee (MMPAC) has been changed from P.O. Box 2357, Jefferson City, Missouri 65102, TO:**

**MMPAC**
**P.O. Box 1402**
**Jefferson City, Missouri 65102**

Volume 75, Number 7—July, 1978

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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# Remarks of
# Howard J. McAlhany, M.D.,
# President

*Mr. Speaker, Officers, Dr. Hunter, Ladies and Gentlemen:*

At our annual meeting last year, a charge given to this House of Delegates was that we must become involved in the economics of health care, that we must participate in political action in an attempt to achieve some of our objectives and that we must become involved in health planning. Most important of all, we must assure the public that quality health care is being delivered. If we fail to do these things, then we must accept any fate which might befall us. Have we done these things? Sometimes, I wonder.

From a personal standpoint, the past year has been a stimulating one but, at times, a rather depressing one. The ever-encroaching federal bureaucracy leaves little to be desired. However, I do believe that the Missouri State Medical Association has moved forward in three areas: one, the creation of our captive malpractice insurance company; two, the Missouri Action Plan; and three, the adoption of a new public relations program.

In the spring of 1975, we were confronted with what seemed to be a situation beyond recovery. Too many insurance carriers had withdrawn from Missouri, many without justification, and many physicians found themselves without coverage. At that time, the MSMI provided a stopgap measure—availability of coverage.

In the spring of 1975, only one insurance carrier would talk to us. The other companies were not interested. Now, I understand that some of these companies wish to come back to Missouri and get into the market.

Our new captive company, Missouri Medical Insurance Company, is totally owned and controlled by the physicians in Missouri. All of the stock is owned by the Missouri State Medical Association. It is ours and it offers an unrivaled opportunity for our members. If we support and underwrite the plan, it will provide untold dividends for our organization. One only has to examine the states which have similar programs to see that they are working exceedingly well for them. Our plan will work for us if we endorse and support it. Let's make sure that with our new company, we pay only for the experience in Missouri and not for what is taking place in other states throughout the nation.

The next important positive action I feel our organization has taken is the Action Plan which was developed to produce a program by which the Missouri State Medical Association might provide a service for its members. We are going to be confronted more and more by an adversary relationship with third-party carriers. This is where we must stand firm and insist that no one physician will be abused by any carrier. Our freedoms have been eroded, bit by bit, until the bureaucracy is ready to engulf us.

Simply witness what has taken place in Canada. There the physicians underwent this type of harassment until eventually the central government assumed total control. If we continue our negative and passive attitude, the same thing will happen to us. The inertia and apathy of too many physicians is appalling. "Let someone else do it for you" is not a philosophy that the Missouri State Medical Association can afford to endorse. The leadership must come from the Missouri State Medical Association, not 535 North Dearborn Street in Chicago.

The third positive stance the Missouri State Medical Association approved was the creation of a public relations program. This is designed to provide a vehicle for physicians to present their views to the public and, also, to determine what the public thinks of us.

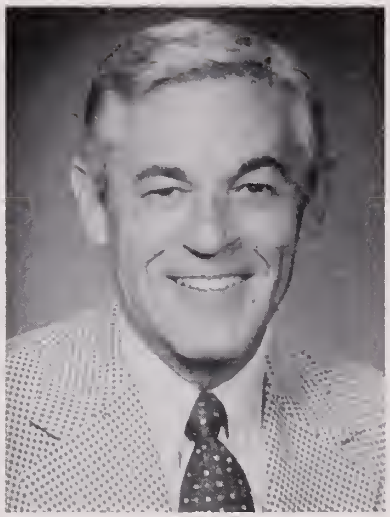
Hopefully, this program will be able to convince the citizens in Missouri that a national health program will not only lead to a decline in the quality of care but will increase the expense of deliverin health care. Witness Medicare and Medicaid. In th last decade, the budget for these two programs increased from $7 billion to $40 billion, an increase o 484%. This is a classic example of how the bureaucracy functions.

The time for compromise is over. In fact, we hav compromised too long. Now is the time for action—to insist that physicians are the only group wh can deliver health care. A mechanism has been developed by which the physicians can stand togethe and demand their right to protect their practice The implementation of this mechanism rests wit the membership. The theme that I hoped to projec to our membership is unity of members and tha the federation concept is basic if organized medicine, as we know it today, is going to survive. Nothing can be gained by physicians splintering apart In fact, everything can be lost. Also, it is unfair fo physicians to expect organized medicine to pose a answer for every dissident question.

Personally, I do not believe our cause is lost. Yet we must stand together and fight for our right t demand that caring for sick people is our responsibility and we cannot afford to relegate this to a inept bureaucratic system in Washington. We mus lead. We must not lose by default. It is mandator that an organized front be established to counte the proposals which merge from the central government.

Last year, I pledged my support to work for th best interests of the physicians in Missouri. I reconfirm that pledge. I hope you will do the same.

# Remarks of
# John N. Martin, M.D.,
# President-Elect



*Mr. Speaker, President McAlhany, Dr. Hunter, Delegates, Ladies and Gentlemen:*

First, I express our great appreciation to you, Dr. McAlhany, for the fine leadership you have given to this Association during the past year.

I understand the word is going around the Missouri State Medical Association that the Association is going from "brains" to "plumbing." Let me tell you that if your brain quits working, you can always get a job running a federal agency. But if your plumbing stops, you look for help immediately. There's one thing about the plumbing business. It teaches you to get your feet wet and keep on working.

We, in the medical profession, must "get our feet wet" in politics because the flood of federal regulations comes from there. So, let's don't drown. Let's all work together.

None of us can deny that the long arm of government has put American medicine on the defensive. You know, a good team not only plays defense. It must have a great offense, also. When you realize that the federal government regulatory agencies have grown from four to 77, you realize that all America is on the defensive.

I believe that bureaucracies have been developed by cloning. Think about that for a minute. Not only the government, but other organizations want to see the practice of medicine drastically changed. To challenge this encroachment, we must have harmony and cooperation within our own professional organization to develop our defense and present our offense.

The critics are saying that medicine is now too expensive to leave to the doctors. Those critics apparently fail to understand how expensive government-operated Medicare and Medicaid really are.

The Secretary of HEW has stated, "Medicine is big business and should be subject to public control." What he did not say was that the federal government is the biggest of all business and the public cannot control it.

Politically insulated bureaucracies are where our battle is now and where it's going to be fought. Until the American people realize that bureaucracies are formed for the benefit of the bureaucrat and not for the benefit of the people, we in medicine must have an offense for that battle.

Clarence Darrow said, "You can protect your liberties in the world only by protecting the other man's freedom."

The magazine, *Forbes*, stated in October of 1977, "In the 1976 Congressional election, organized medicine outspent every other special interest group, even labor, in campaign contributions." So what? That's the name of the game. Until they quit playing that game, we are going to be there.

Members of the medical profession, the Missouri Medical Political Action Committee needs your support.

It would be great to be a sustaining member. Please give it some thought. If you will "throw" your $100 to us, we can throw one of the "offensive plays" into the game.

In the last few years, our Association has been greatly concerned with internal affairs. While I certainly don't want to diminish the importance of these issues to our members, I do want to stress that we have real enemies outside of medicine and we cannot lose sight of what is at stake here if we neglect to get involved in the fight against outside

*(Continued on page 303)*

# Report of
# Mrs. W. Jack Stelmach,
# President of the MSMA Auxiliary

*Mr. Speaker, Dr. McAlhany, Dr. Hunter, Delegates and Friends:*

Thank you for the opportunity to report the accomplishments of the MSMA Auxiliary this past year.

One year ago, I embarked upon what was to be a rewarding year for me and what I hope has been a rewarding year for the Auxiliary and the Medical Association. None of us ever accomplish all that we plan and we feel that there is much left undone. However, we also hope that those foundations that we lay can be built upon by our successors.

First, the bad news. The Auxiliary membership has again taken a drop and the Auxiliary has not been able to show the turn-around seen in so many areas by the AMA. The reasons for this are many and varied, and the Medical Association members can do much by joining with us in selling their spouses on the value of the Auxiliary to the Medical Association. This value will be shown in the rest of my report.

The MSMA Auxiliary membership of 1,581 compares to MSMA membership of 5,100, with our county auxiliaries ranging from 100% of the spouses to a low of 7%. Strong auxiliaries and medical societies seem to go hand in hand and each auxilian, whether a member-at-large or a member of a county group, contributes much.

Now, for the good news. Having seen what our Cape Girardeau Auxiliary was doing in a major community health program, the Missouri Auxiliary undertook to spread the teaching of CPR and the training of CPR instructors throughout the state. Beginning with ten instructors and several instructor-trainers, Cape Girardeau in one year has trained 35 new instructors in the community and has taught CPR to more than 1,000 lay persons. They are raising money to purchase new equipment. Other areas have followed and have now trained instructors and purchased their own training equipment. Those of you who live in those areas know how much your own wives have done and how dedicated they are.

This year, we have again joined with the Missouri Division of Health in providing immunization information to the citizens of Missouri through you, their physicians. We, also, are appealing to the new mothers to make them aware of the need for immunizations for their babies from soon after birth. Brochures are being provided to the hospitals throughout the state and we hope that this will prevent in the future such immunization gaps as recently occurred.

The Auxiliary continues to be active in the legislative area with members not only monitoring HSAs but, also, serving on such boards. Of course, they are always ready to join in writing or speaking to legislators.

Our community programs are as varied as our members and range from meals for the elderly, telephone reassurance and visiting to youth center aid, child abuse programs and cancer detection education. In health programs, the local auxiliaries are ever willing to help with their own community needs, and the state auxiliary is ready to help with assistance and encouragement to the local auxiliaries.

The need for financial assistance for those studying for health careers has been growing as never before and the Auxiliary continues to raise money for AMA-ERF, MSMF and many local scholarships. With tuition rising rapidly to devastating heights, our loan and grant funds are taxed to the limits. This year, our contributions for these funds total more than $21,000, which includes not only aid for tuition but, also, unrestricted funds to medical schools in our state.

We have enjoyed our opportunities to meet not only the members of the Auxiliary but, also, the members of the MSMA as we have traveled this year. Auxiliary goals are the goals of the Medical Association and our communications are kept open through our attendance at Council meetings and through the Auxiliary page in the monthly Missouri Medicine. We appreciate your financial assistance to our news publication, *Missouri Auxiligram*, and the assistance of staff members in the state office, especially our liaison, Miss Jean Duensing.

I would like to recognize and express my appreciation for the strong support and dedication of the Auxiliary members throughout the state and, also, to express my appreciation to the MSMA, officers, councilors and members.

MSMA Auxiliary members are recognized as leaders nationally. At the present time, we have four Missourians serving on the National Board of the AMA Auxiliary.

Lastly, we want to be sure that you know that we have changed our name from Woman's Auxiliary to the Missouri State Medical Association to the Missouri State Medical Association Auxiliary. We also have changed the references in our Bylaws from wife to spouse and now, like the Marines, we need a few good men. We will gladly accept male memberships at our registration desk.

On behalf of the Auxiliary, I wish you a most productive and successful convention.

## *Remarks of the President-Elect*

(Continued from page 301)

regulators.

We hear so much about the health care crisis when, in reality, it's a fiscal crisis we have in this country. Although the cost and cost containment of health care is a definite concern of our profession, we and we alone cannot reverse this trend. However, we can and we must attack the cost factor where it starts. In my opinion, it's at the individual hospital staff level. Neither national or state guidelines can solve the so-called high cost of health care. Remember, doctors, you can do nothing by doing nothing.

I'd like to call your attention to the report of the MSMA Ad Hoc Committee on the Impaired Physician. Please read it. I congratulate the Committee upon doing a fine job and for making positive suggestions. The impaired physician is a sensitive subject, but effective methods of dealing with the mentally ill, the alcoholic or the drug-addicted doctors are necessary.

We, of the medical profession, have some misconceptions about our impaired colleagues and it behooves us all to understand this problem.

A drug-addicted physician wrote in a medical news journal recently, "I am that common, but rarely mentioned problem—the drug-addicted doctor. Depending upon whom you talk to, I am an amoral bum, an ill-used and tragic figure, an embarrassing statistic, a blameless sick man or a disgrace to the profession. Actually, I am none of these things, but perhaps a little bit of all of them, but eight years of fighting the problem has made one thing discouragingly clear. The most enlightened medical profession that civilization has ever known in the wealthiest country in history doesn't know how to treat me and really doesn't want to know." We must want to know and we must learn how to treat him successfully, both for the sake of the physician and for his patients.

The mentally ill, the alcoholic and the drug-addicted are not just a problem in the ranks of physicians, as you all know. However, our impaired colleagues are looking toward our profession for our help. So, please read the recommendations of the ad hoc committee. If you have information or suggestions you want to give us, let us know.

I welcome you all to this convention and hope you enjoy the sessions. I hope you will see some of your old friends and that you make new friends, because this is the place to do it. I thank you for the honor you have bestowed upon me.

We, in the medical profession, have some big problems and some little problems, and we always will. As Abraham Lincoln said, "The smallest things are often the most difficult to deal with." And, in urology, I find this to be true.

### Minutes of the

# MISSOURI STATE MEDICAL ASSOCIATION

## House of Delegates

### Crown Center Hotel—Kansas City

### April 13-16, 1978

## FIRST SESSION

The first Session of the House was called to order at 1:30 PM on April 13, 1978 in the Century Room with Edwin K. Burford, Jr., Speaker, presiding. The following officers, councilors and delegates were present during the 120th Annual Session:

### OFFICERS

| | |
|---|---|
| President | Howard J. McAlhany, Springfield |
| President-Elect | John N. Martin, St. Joseph |
| Vice-President | Stanley S. Peterson, Springfield |
| Vice-President | I. H. Clark, Kansas City |
| Vice-President | Ernest Wadlow, St. Joseph |
| Secretary | John I. Matthews, Jefferson City |
| Treasurer | James M. Stokes, St. Louis |
| Speaker of the House | Edwin K. Burford, Jr., Cape Girardeau |
| Vice-Speaker of the House | Lily Ann Hanes, St. Louis |
| Immediate Past-President | Max S. Franklin, St. Louis |

### COUNCILORS

| | |
|---|---|
| 1st District | Richard C. Hedges, North Kansas City |
| 2nd District | John Walterscheid, Hannibal |
| 3rd District | Richard V. Bradley, St. Louis |
| 4th District | Louis P. Hetlage, Troy |
| 5th District | H. Peter Ekern, Mexico |
| 6th District | R. John Torontow, Nevada |
| 7th District | Andrew McCanse, Kansas City |
| 8th District | Walter German, Springfield |
| 10th District | E. T. Hansbrough, Poplar Bluff |

### VICE-COUNCILORS

| | |
|---|---|
| 1st District | Gary Dyer, St. Joseph |
| 3rd District | Richard Fallon, St. Louis |
| 4th District | Frederick Peterson, St. Louis |
| 5th District | Mary McCaffree, Jefferson City |
| 6th District | Roy W. Pearse, Nevada |
| 7th District | I. H. Clark, Kansas City |
| 8th District | Marvin Singleton, Joplin |
| 10th District | George Ladyman, Poplar Bluff |

### DELEGATES

#### First District

| | |
|---|---|
| Buchanan | Allen I. Herman, St. Joseph |
| Buchanan | Edmund W. Kline, St. Joseph |
| Buchanan | Berwyn H. Moen, St. Joseph |
| Buchanan | Edward M. Stevens, St. Joseph |
| Buchanan | Ernest E. Wadlow, St. Joseph |
| Clay | G. Comer Bates, N. Kansas City |
| Clay | Donald A. Fakhoury, Kansas City |
| Clay | Donale E. Kuenzi, Kansas City |
| Clay | Truman B. Schertz, N. Kansas City |
| Clay | William D. Soper, Liberty |
| Clay | Robert D. Williams, Kansas City |
| Grand River | Ralph W. Bohnsack Brookfield |
| Grand River | Tom Cofer, Chillicothe |
| Grand River | Albert D. Cross, Trenton |
| Grand River | John R. Dixon, Brookfield |
| Grand River | Merriam Gearhart, Bethany |
| Grand River | Edward E. Nixon, Gallatin |
| Grand River | H. R. Trinidad, Chillicothe |
| Northwest Missouri | Edward D. Bare, Tarkio |
| Northwest Missouri | Patrick B. Harr, Maryville |
| Northwest Missouri | Frank Matteson, Grant City |
| Platte | S. Lloyd Allen, Kansas City |

#### Second District

| | |
|---|---|
| Chariton-Macon-Monroe-Randolph | C. C. Cohrs, Moberly |
| Chariton-Macon-Monroe-Randolph | D. E. Eggleston, Macon |
| Lewis-Clark-Scotland | Landis Y. Davis, Canton |
| Marion-Ralls-Shelby | Michael J. Bukstein, Hannibal |
| Marion-Ralls-Shelby | Carl R. Kruse, Palmyra |
| North Central | Francis Tarvydas, Edina |
| Pike | Lawrence G. Stuerman, Louisiana |

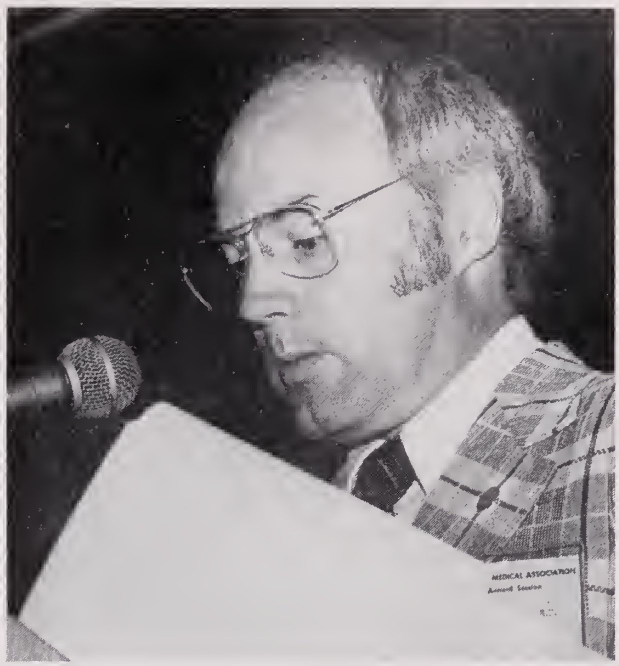
#### Third District

| | |
|---|---|
| St. Louis City | John Anderson |
| St. Louis City | Luis B. Anglo |
| St. Louis City | M. Roman Banton |
| St. Louis City | Walter Berman |
| St. Louis City | Ralph L. Biddy |
| St. Louis City | H. Waldo Bird |
| St. Louis City | Arnold S. Block |
| St. Louis City | George Bohigian |
| St. Louis City | Robert L. Bolton |
| St. Louis City | R. William Burmeister |
| St. Louis City | Carlo Caciolo |
| St. Louis City | Gerard M. Callaghan |
| St. Louis City | T. J. Cooper |
| St. Louis City | James S. Criscione |
| St. Louis City | Richard H. Fallon |
| St. Louis City | Sylvester Flotte |
| St. Louis City | Daniel Fraser |
| St. Louis City | Joseph Gagliardo |
| St. Louis City | August W. Geise |
| St. Louis City | Clement B. Grebel |

| | |
|---|---|
| St. Louis City | Joseph Crindon |
| St. Louis City | David Hardy |
| St. Louis City | George L. Hawkins |
| St. Louis City | Patrick C. Hogan |
| St. Louis City | Vencel W. Hollo |
| St. Louis City | J. Ted Jean |
| St. Louis City | Otey S. Jones |
| St. Louis City | Edward H. Kowert |
| St. Louis City | Robert E. Kuhlman |
| St. Louis City | Francis X. Lieb |
| St. Louis City | J. Otto Lottes |
| St. Louis City | Robert MacDonald |
| St. Louis City | O. Macheck |
| St. Louis City | Antonio Manansala |
| St. Louis City | Napoleon Maminta |
| St. Louis City | Paul F. Max |
| St. Louis City | Roger L. Mell |
| St. Louis City | Melvin E. Meyer |
| St. Louis City | Charles Obermeyer |
| St. Louis City | Richard T. Quick |
| St. Louis City | Jean L. Ray |
| St. Louis City | David Reisler |
| St. Louis City | Frank O. Richards |
| St. Louis City | Hubert A. Ritter |
| St. Louis City | Mickey Salmon |
| St. Louis City | John S. Sciortino |
| St. Louis City | Donald C. Sessions |
| St. Louis City | Edward Shaw |
| St. Louis City | A. J. Signorelli |
| St. Louis City | Kenneth R. Smith |
| St. Louis City | William Stoneman, III |
| St. Louis City | George E. Thoma, Jr. |
| St. Louis City | Donald L. Thurston |
| St. Louis City | Ernest T. Velasco |
| St. Louis City | Bruce Walz |
| St. Louis City | James M. Whittico |
| St. Louis City | David L. Wilkinson |
| St. Louis City | George Zografakis |

### Fourth District

| | |
|---|---|
| Franklin-Casconade-Warren | James T. Shaw, Hermann |
| Franklin-Casconade-Warren | William Richardson, Union |
| Jefferson | Vicente D. Deles, Crystal City |
| St. Charles-Lincoln | Edward Damron, Elsberry |
| St. Charles-Lincoln | Francisco Obando, Troy |
| St. Charles-Lincoln | Paul Rother, St. Charles |
| St. Charles-Lincoln | John Soucy, St. Charles |
| St. Louis County | Vernon Balster |
| St. Louis County | Jill Clayton |
| St. Louis County | Edwin J. Cunningham |
| St. Louis County | James A. Diestelhorst |
| St. Louis County | Harry C. Eggleston |
| St. Louis County | Daniel Fabito |
| St. Louis County | Marijan Herjanie |
| St. Louis County | Tom Johnson |
| St. Louis County | Mohammed Kabir |
| St. Louis County | John M. Laird |
| St. Louis County | Robert A. Mayer |
| St. Louis County | Orlando Meneses |
| St. Louis County | Jay Meyer |
| St. Louis County | Jerry Middleton |
| St. Louis County | Charles Miller |
| St. Louis County | Charles A. Molden |
| St. Louis County | Arturo Montes |
| St. Louis County | Wilbur Mullarky |
| St. Louis County | David Ohlms |
| St. Louis County | Frederick Peterson |
| St. Louis County | Edward Ring |



Dr. Edwin K. Burford, Jr., speaker, calls the House to order and declares the 120th Annual Session officially open.

| | |
|---|---|
| St. Louis County | Rudy Ruhling |
| St. Louis County | Michael Rumelt |
| St. Louis County | Antonio B. Santillano |
| St. Louis County | Cary Sherman |
| St. Louis County | James Sisk |
| St. Louis County | Frank Valach |
| St. Louis County | Francis Walker |
| St. Louis County | Miles Whitener |

### Fifth District

| | |
|---|---|
| Audrain | Ben Jolly, Mexico |
| Boone | William C. Allen, Columbia |
| Boone | A. Sherwood Baker, Columbia |
| Boone | George W. N. Eggers, Columbia |
| Boone | Larry Millikan, Columbia |
| Boone | Ben A. Moranville, Columbia |
| Boone | Kenneth L. Rall, Columbia |
| Boone | Hugh E. Stephenson, Columbia |
| Boone | Robert M. Thomas, Columbia |
| Cole | Harold Kanagawa, Jefferson City |
| Cole | Mary K. McCaffree, Jefferson City |
| Cole | Kenneth K. C. Siu, Jefferson City |
| Cole | Robert Tanner, Jefferson City |
| Morgan | Jack Cunn, Versailles |

### Sixth District

| | |
|---|---|
| Johnson | Keith D. Jones, Warrensburg |
| Lafayette-Ray | Jordan Kelling, Waverly |
| Lafayette-Ray | Charles Riley, Richmond |
| Pettis | A. J. Campbell, Sedalia |
| Pettis | Robert L. Class, Sedalia |
| Saline | E. Lee McCorkle, Marshall |
| West Central | Alfred W. Eklund, Pleasant Hill |
| West Central | Charles Lusk, Butler |
| West Central | Roy W. Pearse, Nevada |
| West Central | Rolla B. Wray, Nevada |

### Seventh District

| | |
|---|---|
| Jackson | Lafe W. Bauer, Kansas City |
| Jackson | Calvin Beck, Kansas City |
| Jackson | Richard Biery, Kansas City |
| Jackson | Alfred D. Biggs, Jr., Kansas City |
| Jackson | Marvin D. Bordy, Kansas City |
| Jackson | Raymond J. Caffrey, Kansas City |
| Jackson | J. G. Campbell, Kansas City |
| Jackson | John W. Cashman, Kansas City |
| Jackson | Selbert G. Chernoff, Kansas City |
| Jackson | Richard M. Childs, Kansas City |
| Jackson | Granville E. Clark, Kansas City |
| Jackson | I. H. Clark, Kansas City |
| Jackson | Mary Cortner, Kansas City |
| Jackson | Thomas R. Cotton, Kansas City |
| Jackson | Martin L. Crow, Kansas City |
| Jackson | Lawrence Evans, Kansas City |
| Jackson | Robert C. Fairchild, Kansas City |
| Jackson | Jerry C. Freeman, Kansas City |
| Jackson | John A. Griffith, Jr., Kansas City |
| Jackson | Edward P. Guteck, Kansas City |
| Jackson | F. H. Hartwig, Kansas City |
| Jackson | William D. Hoadley, Kansas City |
| Jackson | John D. Hunkeler, Kansas City |
| Jackson | Morton Jacobs, Kansas City |
| Jackson | Harry S. Jonas, Kansas City |
| Jackson | Forrest Kendall, Kansas City |
| Jackson | Paul G. Koontz, Kansas City |
| Jackson | Howard E. Linville, Kansas City |
| Jackson | R. Stacy Long, Kansas City |
| Jackson | Donald E. McIntosh, Kansas City |
| Jackson | Edwin E. Mac Gee, Kansas City |
| Jackson | M. I. Marks, Kansas City |
| Jackson | William J. Medlicott, Kansas City |
| Jackson | John H. Nesselrode, Kansas City |
| Jackson | Richardson K. Noback, Kansas City |
| Jackson | Thomas P. O'Farrell, Kansas City |
| Jackson | Milton Ozar, Kansas City |
| Jackson | Larry G. Piepergerdes, Kansas City |
| Jackson | Donald A. Potts, Independence |
| Jackson | Wade V. Robinett, Kansas City |
| Jackson | John A. Sheahon, Kansas City |
| Jackson | Walter J. Stelmach, Kansas City |
| Jackson | Gerald F. Tuohy, Kansas City |
| Jackson | William C. Van Buskirk, Kansas City |
| Jackson | George Volk, Kansas City |
| Jackson | James H. Whitaker, Kansas City |
| Jackson | S. Dwight Woods, Kansas City |
| Jackson | Ronald A. Youmans, Kansas City |
| Jackson | James P. Youngblood, Kansas City |

### Eighth District

| | |
|---|---|
| Barton | Alvin R. Cain, Lamar |
| Dallas-Hickory-Polk-Dade | O. A. Griffin, Buffalo |
| Greene | Charles Ash, Springfield |
| Greene | James Cook, Springfield |
| Greene | Francis M. Corry, Springfield |
| Greene | Darrell Domann, Springfield |
| Greene | David W. Hall, Rogersville |
| Greene | Duane C. Hellam, Springfield |
| Greene | H. B. Ivy, Springfield |
| Greene | Don E. Menchetti, Springfield |
| Greene | De Armond Moore, Springfield |
| Greene | Stanley S. Peterson, Springfield |
| Greene | R. Wayne Shelton, Springfield |
| Greene | David L. Spalding, Springfield |
| Greene | Thomas P. Sweeney, Springfield |
| Greene | Lee Vensel, Springfield |
| Greene | C. Courtney Whitlock |
| Greene | Arlen D. Winsky, Springfield |
| Jasper | John R. Esther, Joplin |
| Jasper | Gil B. Manalo, Carthage |
| Jasper | F. Wendell Pence, Joplin |
| Jasper | Marvin A. Singleton, Joplin |
| Jasper | Robert L. Willcoxon, Joplin |
| Ozarks | Paul Anderson, Neosho |
| Ozarks | Larry Barnes, Neosho |
| Ozarks | Charles Christianson, Mt. Vernon |
| Ozarks | Kenneth Glover, Mt. Vernon |
| Ozarks | Victor Occeno, Monett |
| Webster | T. M. Macdonnell, Marshfield |

### Ninth District

| | |
|---|---|
| Mid-Missouri | Deo K. Bhati, Salem |
| Mid-Missouri | Rae W. Froelich, Lebanon |
| Mid-Missouri | H. Neal Grannemann, Rolla |
| Mid-Missouri | Larry Marti, Rolla |
| Mid-Missouri | George Slahorek, Fort Leonard Wood |
| South Central | W. T. Morgan, Jr., West Plains |
| South Central | Joe L. Spears, Cabool |
| South Central | Joe A. Wall, Houston |

### Tenth District

| | |
|---|---|
| Butler-Wayne-Ripley-Carter | George H. Ladyman, Poplar Bluff |
| Butler-Wayne-Ripley-Carter | Henry Lestman, Doniphan |
| Butler-Wayne-Ripley-Carter | Kirby L. Turner, Poplar Bluff |
| Cape Girardeau | Jean A. Chapman, Cape Girardeau |
| Cape Girardeau | Charles H. Cozean, Cape Girardeau |
| Cape Girardeau | John K. Holcomb, Cape Girardeau |
| Cape Girardeau | Melvin C. Kasten, Cape Girardeau |
| Mineral Area | Norma Farmer, Farmington |
| Mineral Area | Robert Huckstep, Farmington |
| Perry-Ste. Genevieve | Job Pontillas, Perryville |
| SEMO | Robert L. Frazier, Sikeston |
| SEMO | Fuad H. Kandalaft, Dexter |
| SEMO | Edwin J. Masters, Sikeston |
| SEMO | John P. Sargent, Sikeston |

## DELEGATES-AT-LARGE

Edwin K. Burford, Jr., Cape Girardeau, Speaker
Lily Ann Hanes, St. Louis, Vice-Speaker

### Past-Presidents

Victor B. Buhler, Kansas City
R. Allen Chandler, Kansas City
James C. Cope, Rocheport
Joseph L. Fisher, St. Joseph
Max S. Franklin, St. Louis
Walter T. Gunn, St. Louis
Kenneth C. Hollweg, Kansas City
Guy N. Magness, University City
Gerald L. Miller, Kansas City
Doyle C. McCraw, Bolivar
H. E. Petersen, St. Joseph
E. A. Stricker, St. James
Byron M. Stuart, Boonville

## STUDENT DELEGATES

Ms. Betsy Garrett, University of Missouri-Columbia
Mr. Michael Haley, University of Missouri-Columbia
Mr. Steven J. Adler, Washington University
Ms. Michele Berman, Washington University
Mr. Paul J. Sheehan, St. Louis University
Mr. Steve Smalley, University of Missouri-Kansas City
Mr. Alan S. Wasserman, University of Missouri-Kansas City

The invocation was given by Howard J. McAlhany, president of the Missouri State Medical Association.

Dr. Doyle C. McCraw presented the report of the Credentials Committee, stating that satisfactory credentials had been presented by ten officers, nine councilors and 170 delegates. He informed the House that this number of delegates constitutes a quorum.

The minutes of the 119th (1977) Annual Session, which were published in the July, 1977 issue of Missouri Medicine were approved as published.

## Reference Committees

**The Speaker announced appointment of the following reference committees and presented his instructions to the committees:**

### CONSTITUTION AND BYLAWS

Jean A. Chapman, Cape Girardeau, Chairman
Paul B. Anderson, Neosho
Francis X. Lieb, St. Louis
Lawrence L. Evans, Kansas City
Charles Miller, Kirkwood

### MEDICAL EDUCATION AND PUBLIC WELFARE

Kenneth Smith, St. Louis, Chairman
Jill M. Clayton, St. Louis
Robert L. Glass, Sedalia
Larry G. Piepergerdes, Kansas City
Paul J. Sheehan, Student, St. Louis University

### MISCELLANEOUS AFFAIRS

Martin L. Crow, Kansas City, Chairman
Frank O. Richards, St. Louis
James R. Cook, Springfield
Ben A. Moranville, Columbia
Clarence C. Cohrs, Moberly

### REPORTS OF OFFICERS

William D. Soper, Liberty
George H. Zografakis, St. Louis
John P. Sargent, Sikeston
Antonio B. Santillano, St. Louis
Neal Grannemann, Rolla

### RESOLUTIONS

Lee H. Vensel, Springfield, Chairman
Edward F. Bare, Tarkio
George M. Bohigian, St. Louis
William C. Van Buskirk, Kansas City
Jack Gunn, Versailles

The Speaker appointed Mr. John Kuebler, Staff, as official parliamentarian for the meeting.

The Speaker introduced Dr. McAlhany who delivered the President's Message.

**(The President's Message is published on page 299.)**

The Speaker then asked Dr. Martin to present the remarks of the incoming president.

**(Dr. Martin's address is published on page 301.)**
**(Both presidential messages were referred to the Reference Committee on Reports of Officers.)**

The Speaker then invited Mrs. W. Jack Stelmach to present the annual report of the president of the MSMA Auxiliary.

**(Mrs. Stelmach's report is published on page 302. It was referred to the Reference Committee on Reports of Officers.)**

Mrs. Stelmach introduced Mrs. A. J. Campbell, president-elect of the Auxiliary.

At this time, Dr. Ronald A. Youmans, Kansas City, paid tribute to Mrs. Stelmach and presented a bouquet of flowers on behalf of Jackson County Medical Society.

The Speaker introduced Dr. Robert E. Hunter, chairman of the Board of Trustees of the American Medical Association, who was a distinguished guest at the Annual Session. Dr. Hunter addressed the House of Delegates and presented a Membership Award for the Missouri State Medical Association to President McAlhany. The award is for the current membership exceeding that of the previous year.

**The Speaker stated that the reports of the Officers, Committees, Commissions and Council were published in the Delegates Handbook and referred the reports to the appropriate reference committees.**

**The reports of the Officers, Committees, Commissions and Council are as follows:**

**The large attendance at each session of the 1978 House of Delegates reflected the MSMA physicians' concern and interest in legislative and other matters now affecting organized medicine and quality health care.**

In his official address to the House of Delegates, President Howard J. McAlhany discussed the MSMA Action Plan and reconfirmed his pledge to support and work for the best interest of Missouri physicians.

## Reports of Officers

### REPORT OF THE SECRETARY

The Missouri State Medical Association had 5,087 members as of December 31, 1977. This was an increase of 171 members over the previous year.

MEMBERSHIP CHANGES DURING THE YEAR

| | | |
|---|---|---|
| Members, January 1, 1977 | | 4,916 |
| New Members admitted during year | 300 | |
| Reinstated | 11 | |
| Total Added | 311 | |
| Members dropped, resigned and transferred during year | 99 | |
| Deceased | 41 | |
| Total Lost | 140 | |
| Net Gain | | 171 |
| Members, December 31, 1977 | | 5,087 |

The Committee on Nominations, which is appointed by the president from the House of Delegates, must submit nominations for the following offices:

Three Vice-Presidents to fill the expired terms of Stanley S. Peterson, Springfield; Irving H. Clark, Kansas City; and Ernest Wadlow, St. Joseph.

A Speaker of the House of Delegates and a Vice-Speaker of the House of Delegates to fill the expired terms of Edwin K. Burford, Jr., Cape Girardeau, Speaker, and Lily Ann Hanes, St. Louis, Vice-Speaker.

Two Delegates and corresponding Alternates to the American Medical Association to fill the vacancies created by the expiration on December 31, 1978, of the terms of Delegate, James C. Sisk, St. Louis; Alternate, Richard P. Bowles, Liberty; Delegate, Rae W. Froelich, Lebanon; Alternate, Francis X. Lieb, St. Louis.

The terms (two years) of the Councilors of the odd-numbered districts expire this year. These Councilors are Richard C. Hedges, N. Kansas City, First District; Richard V. Bradley, St. Louis, Third District; H. Peter Ekern, Mexico, Fifth District; Andrew McCanse, Kansas City, Seventh District and Claude W. Cooper, Thayer, Ninth District. Delegates from these districts shall meet during the meeting prior to the last day, and elected the Councilor for their district. The election shall be certified to the House of Delegates on a prescribed form which will be furnished.

The entire session will be held in the Crown Center Hotel, Kansas City. The House of Delegates will hold its first session on Thursday, April 13 at 1:30 PM in the Century Room. Reference Committees will meet in committee rooms in the hotel. The second session of the House of Delegates will convene at 4 PM, Friday, April 14 in the Century Room. The final session of the House, a breakfast meeting, will be held in the Century Room at 7:30 AM on Sunday, April 16.

Registration facilities will be open on Thursday, April 13, from 11 AM to 4 PM; on Friday and Saturday from 8 to 5 PM, and on Sunday from 7:30 to 9 AM. Registration will be in the Century Room Foyer.

John I. Matthews, Secretary

(Referred to Reference Committee on Reports of Officers.)

### REPORT OF THE TREASURER

The report of the Treasurer is covered in the Financial Statement which appeared in the March, 1978 issue of Missouri Medicine and is included elsewhere in the Delegates' Handbook. Therefore, it is not repeated here.

James M. Stokes, Treasurer

(Referred to Reference Committee on Reports of Officers.)

### REPORT OF EXECUTIVE SECRETARY

This past year has undoubtedly been one of the most exciting and rewarding of any of the 128 years of the Association.

For three or four years, the concept of an association-owned stock professional liability insurance company that could provide a reasonably priced occurrence-type policy for our members had been a dream of four or five dedicated men. This dream is now a reality and from all indications, the company is rapidly becoming a most successful and worthwhile venture.

Dr. McAlhany's "Action Plan" that will provide great benefits to the members of the Association in the socio-economic, political and medical affairs areas was unanimously adopted by our House of Delegates during the November Interim Session. Portions of this program are now in operation and, hopefully, by the end of 1978, we will have the committees functioning actively in their respective areas.

The problems facing private practice physicians and organized medicine in the coming years will be even greater than many of the challenges of the past. The list of problems, both real and imagined, is almost never-ending. Through this "Action Plan," physicians will stand united and provide strong and effective leadership in planning their own destiny.

It is most unfortunate that there would be even one physician in our state who would not be a member of the Association. Nowhere will the physician find a greater advocate or ally. Only through a strong united organization can effective programs be developed and brought to completion.

The Association gained 171 members in 1977. The Council approved a membership recruitment program for 1978. To date, approximately 40 applications have been received by this office and forwarded to our component societies through this program.

Reflecting further on the important events of the past year, I believe that I should also mention our new ongoing public relations program. At this time, a professional survey is being conducted to determine the attitude of citizens of Missouri toward physicians and medical care. After the survey has been completed and analyzed, a specific program will be developed through the assistance of an outside consultant.

I would also like to thank all of the officers and councilors of the Association for the many hours they have contributed on the part of the profession and for the leadership that they have provided this organization during the past year. I would most especially like to extend my personal thanks to Dr. McAlhany, your president, for providing strong leadership and direction during the past year.

I am also pleased to express my gratitude and deep appreciation to a loyal and dedicated staff. They are all energetic and innovative and have proven to be a real asset to the Association. Through their dedicated and diligent efforts, it has truly been a most progressive year for the Association.

Hopefully, members will look upon the Association as an investment—of time and money—and use its services. If you have not been satisfied with the results thus far, why not get involved and work from within for necessary changes.

Royal O. Cooper, Executive Secretary

**(Referred to Reference Committee on Reports of Officers.)**

## Reports of Standing and Ad Hoc Committees

### REPORT OF COMMITTEE ON CONSTITUTION AND BYLAWS

The Committee met by conference call this year to draft and approve acceptable language for Constitutional changes and Bylaw amendments recommended by the Committee on Planning and acted upon by the House of Delegates. The Committee, in the next year, will be studying several proposals: an amendment to provide that the Secretary would be elected by the House of Delegates, an amendment to provide for only one position of Vice President and a proposal to reorganize and redraft the Bylaws to improve the language and make the provisions more comprehensible.

The Chairman hereby expresses his gratitude to the members of the Committee who are serving MSMA well in this important function.

R. Stacy Long, *Chairman*
Joseph Conrad
Donald H. Beisner
George Bohigian
Miles C. Whitener

**(Referred to Reference Committee on Constitution and Bylaws.)**

### REPORT OF COMMITTEE ON PUBLICATIONS

The 74th volume of Missouri Medicine was completed with the publication of the December, 1977 issue. During the year, 13 issues were printed and distributed. Ten of these issues contained scientific articles, special articles, organizational reports, monthly messages from the Presidents of the Association and the MSMA Auxiliary and news and items of interest to members of the medical profession. The February issue contained the official proceedings of the First Interim Session. The July 1 issue contained the official proceedings of the 1977 (119th) Annual Session of the MSMA House of Delegates. The August 15 issue is the annual Membership Roster.

There were two special issues of the Journal. The scientific articles in the April issue were contributed by members of the faculty of the University of Missouri-Columbia School of Medicine and the scientific articles in the December issue were from members of the staff of Ellis Fischel State Cancer Hospital and Cancer Research Center.

During the year, 36 scientific articles and seven special articles were published. Most of the articles were written by Missouri authors.

The editors wish to express appreciation to all who submitted scientific manuscripts and to all other individuals, institutions and organizations, including the administrations, faculties and publications departments of the University of Missouri in Columbia and Kansas City, Saint Louis University, Washington University and Ellis Fischel State Cancer Hospital for their valuable contributions.

At the year's end, the Journal circulation was 5,493.

The complete financial report for the Journal is included in the financial statement of the Missouri State Medical Association for 1977. The Report is published in the March, 1978 issue of Missouri Medicine and is included in the Delegate's Handbook.

Joseph V. Finnegan, *Chairman*
William C. Mixson
Charles S. Sherwin
Byron M. Stuart
Wilfred E. Wooldridge

**(Referred to Reference Committee on Reports of Officers.)**

### REPORT OF THE COMMITTEE ON LEGISLATIVE AFFAIRS

The dates of the MSMA's Annual Session sometimes make it difficult for the Committee on Legislative Affairs to present a definitive report. As you are aware, while we are at this meeting, the General Assembly is completing actions on measures in Jefferson City. The outcome of many subjects of interest to our profession and our patients will be decided by midnight, April 15.

**Dr. Robert E. Hunter, chairman of the AMA Board of Trustees, was a distinguished guest. He presented a membership award for the MSMA to President McAlhany.**

# Anxiety... Often a significant feature of irritable bowel syndrome*

## The action of Librium® (chlordiazepoxide HCl)

## A significant advantage of adjunctive

# Librax®

Each capsule contains
5 mg chlordiazepoxide HCl and
2.5 mg clidinium Br.

## Antianxiety
## Antisecretory
## Antispasmodic

Librax is unique among G.I. medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.

*Librax has been evaluated as possibly effective for this indication.
Please see brief summary of prescribing information on following page.

ROCHE

**Librax®**
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

**Please consult complete prescribing information, a summary of which follows:**

**Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

ROCHE
Roche Products Inc.
Manati, Puerto Rico 00701

Again this year, more than 100 bills were introduced into the House and Senate which would, in some way, affect your practice and/or your patients. In this report, it would be difficult to enumerate all of these issues, but we would urge you to read the reports of our Committee which were presented to the Council and are reprinted in the Handbook's Council Reports section.

The main goal of our Committee remains "involvement." We have been working with the newly appointed Ad Hoc Committee on Political Affairs to obtain the names of MSMA members who will contact their lawmakers on legislative issues. As in any organization, many members are most willing to receive information from the MSMA, but a lesser number will make the needed effort to pass along their expertise to the men and women of the General Assembly who pass or reject proposed laws. Although disheartened sometimes, your Committee pledges to continue and increase its effort to provide more member involvement with the General Assembly.

Several proposed bills during the current General Assembly have posed specific problems for some of the medical specialties. Your Committee feels that the MSMA has come a long way in working with medical specialties on issues of mutual interest. We would like to praise the members of the specialty organizations for their willingness to get involved in the legislative process.

Again, the Committee would remind each of you that this Committee, your officers and staff cannot present an effective legislative program without the interest and assistance of the MSMA membership. When a legislator listens to our testimony, he knows where organized medicine stands. But when he hears from a physician from his own district expressing his opinions, that legislator is made aware that the people "back home" are cognizant of medically-related issues and interested in their outcome.

John I. Matthews, *Chairman*
Howard J. McAlhany
John N. Martin
Andrew McCanse
Richard V. Bradley
Hubert A. Ritter
Robert E. Bregant

(Referred to the Reference Committee on Miscellaneous Affairs.)

## REPORT OF THE COMMITTEE ON PLANNING

Your Committee on Planning has met twice since the last Annual Session, primarily in response to requests and resolutions dealing with restructuring of our Association.

In response to our August meeting, 15 changes in the Bylaws of the MSMA were recommended to the House of Delegates at its Interim Session. Of those, 13 were adopted and two were adopted following changes.

In addition, the Committee was responsible for recommending two changes in the MSMA Constitution which will be voted on at the Fall Interim Session.

At this Annual Session, your Committee on Planning is again offering changes to the Bylaws regarding representation and methods for voting for delegates to the AMA. Resolutions from our Committee will be found in the resolution section of this Handbook.

For the second time, the Committee is recommending that a county must have at least two or more physicians practicing in the county before a delegate to the MSMA House is allowed. We feel that to add additional delegates to the House would only serve to make it unwieldy. Therefore, if the House is to more equitably reflect the population areas of the MSMA membership, we should make this improvement from the "bottom side."

Our resolution dealing with weighted voting for AMA Delegates is a drastic change, to be sure. But this House has often expressed its desire to be more democratic and our resolution is one more effort to arrive at that goal.

By the time the House meets, we will know the outcome of the proposed consolidation of the St. Louis Medical Society and St. Louis County Medical Society. When that information is available, your Committee on Planning realizes that we may have to "start over" on several issues which will affect the future of our Association.

Paul H. Rother, *Chairman*
T. N. Cofer
James C. Cope
Charles P. McGinty
Harry D. Haas
Francis X. Lieb
James A. Hasek
E. Rule Olson
J. Will Fleming
William W. Haynie

**(Referred to Reference Committee on Constitution and Bylaws.)**

## REPORT OF COMMITTEE ON VOLUNTARY HEALTH AGENCIES

The Committee on Voluntary Health Agencies has received several requests from organizations who would like to be listed in the Directory Issue of Missouri Medicine as a Voluntary Health Organization. The Chairman has in the past reviewed these requests and has denied listing when the organization did not appear to be functioning as a Voluntary Health Organization. To assist the Chairman and staff in dealing with such requests, the following definition was adopted which is from a 1963 AMA definition:

> "A voluntary health agency is any nonprofit association organized on a national, state or local level; composed of lay and professional persons; dedicated to the prevention, alleviation and cure of a particular disease, disability or group of diseases and disabilities. It is supported by voluntary contributions primarily from the general public and expends its resources for education, research and service programs relevant to the disease and disabilities concerned."

The Committee will again request the Missouri Medicine editor to print a list of Voluntary Health Organizations in Missouri for the Directory Issue.

The Committee received information that the United Way organizations were requesting Congress to legislate a means of making contributions tax deductible whether or not the standard deduction is elected on the tax return.

May was chosen as the month for the next biennial meeting between the MSMA Committee on Voluntary Health Agencies and the representatives of the Voluntary Health Organizations.

William C. Allen, *Chairman*
Carl Siegel
Carl F. Dennison
Joseph L. Fisher
Paul S. Quinn

**(Referred to Reference Committee on Medical Education and Public Welfare.)**

## REPORT OF THE AD HOC COMMITTEE ON THE IMPAIRED PHYSICIAN

In April, 1975, the first American Medical Association Disabled Doctor Conference was held in San Francisco, with a subsequent conference in Atlanta in February, 1977. From these, the concept of the "impaired or disabled physician" was outlined using the description of Dr. Stanley Gitlow as follows: the incompetent physician; the malicious physician (performing unethical acts for his own reward); and the psychiatrically disturbed physician whose professional competence is undermined by his failure to recognize his own physical disability, his irrational or psychotic behavior, his senility or his addiction to alcohol, or to sedative or narcotic drugs.[1]

Various recommendations came out of these conferences, among them the enactment of "Sick Physician" legislation. Interestingly, because of the Missouri State Medical Association's sensitivity to the needs of its membership as well as its dedication to the protection of public health and the betterment of the Missouri state medical profession, it had supported and sponsored legislation enacted relating to the disabled physician in 1976.[2] At the same time, legislation passed previously exempted physicians from action for damages while serving on boards or committees functioning for the sole purpose of maintaining the professional standards of those engaged in the medical profession.[3]

The laws of the state of Missouri, however, did not provide for the identification and rehabilitation of the disabled physician, but they appeared to be aimed more at providing the State Board of Registration for the Healing Arts a mechanism of protecting the public from the impaired physician. Recognizing this, the Jackson County Medical Society introduced a resolution which was passed by the Missouri State Medical Association House of Delegates in April, 1977 in St. Louis, Missouri requesting the formation of an Ad Hoc Committee on the Impaired Physician to (1) study the incidence of the problem in Missouri and (2) to review and evaluate remedial programs which have been developed by the American Medical Association and other state medical associations.[4]

It is difficult to secure information as to the incidence of the impaired physician in practice in the state of Missouri. Contact with the Missouri State Board of Registration for the Healing Arts suggests that only one to three physician names come before it annually for review under the disabled physician statutes. National studies, however, suggest a much higher incidence of this problem than these figures suggest, and it makes us assume that a larger number of our disabled membership is not coming to the attention of our medical review boards.

Studies of physicians, especially those involved in direct patient care, indicate they are more likely than nonphysicians to be involved in heavy drug and alcohol use and to have relatively unsuccessful marriages. In other states studied, 1% to 2% of physicians are coming before state boards for disciplinary action because of drug dependence and an equal number for alcoholism.[5] It is estimated that 6% to 10% of physicians will be handicapped by alcoholism and half of all physician-alcoholics eventually develop drug addiction.[6] Twenty-six percent of all deaths occurring in physicians between the ages of 25 and 39 years is the result of suicide while only 9% of deaths are suicides in a comparable male nonphysician population.[7] A recent American Cancer Society study of deaths of anesthesiologists revealed the startling finding that 20% of all the deaths of anesthesiologists born after 1920 were from suicide.[8]

Data available on the further incidence of mental illness among physicians are spotty and it is difficult to define the magnitude of the problem because of the natural reluctance of physicians to report themselves or their colleagues. Valliant's controlled studies conclude that 47% of physicians have unsatisfactory marriages.[9] Physicians, statistically, are more likely than others to show traits of dependency, pessimism, passivity and self-doubt. Feelings of inferiority are more common and, when under stress, they tend to show hypochondriacal traits and to turn anger against themselves rather than act it out.[10]

Depression is the most common cause of emotional disturbance among wives of physicians.[11] Studies have shown that clinicians are more anxious than both nonclinical doctors and the general population.[12] Respondents of a questionnaire distributed to the members by the president of the Florida Medical Association Auxiliary indicated that 95% of physician's wives felt neglected, 57% felt that homelife was difficult for their children and 65% admitted that some member of the family had received professional counseling.[13]

Certainly, the occupational hazards, particularly the type and quality of psychiatric treatment that physicians receive, may influence the form of psychiatric illness in physicians and, undoubtedly, influence their outcome. However, of greater etiologic importance is the positive family history of psychiatric illness plus life experience and personality prior to entry in medical school.[14] Incipient mental illness may contribute substantially to academic failure, poor performance during and after medical school and premature death.[15]

Presently, the AMA estimates that some 17,000 physicians in the United States are disabled by alcoholism, drug dependence or mental illness. This is the number of doctors roughly equivalent to the total number of primary care physicians in Alabama, Delaware, the District of Columbia, Iowa, Kansas, Maine, Mississippi, Oklahoma, South Dakota and Wyoming combined.[16] The graduating class of at least one medical school and, perhaps, two or three schools, must step into the ranks each year just to replace their colleagues who commit suicide.[17]

The incidence and importance of the problem of the impaired physician is such that it has appeared in our nonscientific medical trade journals[18] and it is even discussed and publicized in our local newspapers[19, 20] with whatever implication this may have in our era of consumerism. The *AMA Mental Health Newsletter* has frequently addressed itself to this problem, and, as of this year, the AMA Department of Mental Health has begun publishing a quarterly *Impaired Physician Newsletter.*

Although the magnitude and importance of the problems of the impaired physician deserve our study and attention, we should not forget that the great majority of physicians in our society (90% or more) take care of their patients and function superbly with all the stresses of their vocation without becoming emotionally disturbed or impaired. Furthermore, the outlook for the impaired physician should be viewed with a good deal of optimism and encouragement. Organized medicine and the various medical specialty societies are making concerted efforts to eliminate the incompetent physician from medical practice, and we are all subjected to constant review, evaluation, medical audits, specialty board certification by examination and, more recently, board recertification and reexamination, and a proliferation of postgraduate courses and seminars to upgrade physician skills and proficiency. When these fail, there is legal recourse to refuse or remove privileges of practice and, in fact, the very license to practice. The malicious physician is subject to all the restraints and sanctions of our legal system which deserves our support and assistance in curtailing and limiting the functioning of the unethical medical practitioner within our midst.

One place to begin prevention of the development of the sick physician is in medical school where physicians in training can be taught that they represent a high-risk group for alcohol, drug abuse, depression and suicide.[21] Unfortunately, too often, medical schools tend to foster a subtle but consistently demeaning attitude towards emotional illness and psychiatric help despite the fact that one fourth to one third of medical students get some type of counseling during their formative years.[22] Further, should physicians develop a psychiatric illness, a study suggests that in spite of the generally poor disorders from which they suffered, more than half of these physicians were able to return to active professional lives.[23]

In Georgia, the term "Disabled Doctor Program" refers only to the physician addicted to or abusing alcohol or any other mood changing drug. Since its beginning in the summer of 1975, the "Georgia Plan" has been able to record a steady progress in the treatment of the doctors who have entered the program.[24] During their first 18 months of operation, they were able to return recovered physicians to their medical practices at the rate of one per month. As of September, 1977, 62% of the doctors who entered treatment have returned to practice.[25]

A number of state medical societies have evolved different programs of dealing with the impaired physician. These have been developed according to the individual needs and requirements of their own associations but, also, by a good deal of trial and error.[25-32] It was felt that a standing committee needs to be formed to implement a program and its progress should not be impeded by the recommendations of a study or ad hoc committee, except for some suggestions made in a very general way.

Upon review of the above data and information, the Missouri State Medical Association's Ad Hoc Committee on the Impaired Physician wishes to make the following recommendations:

1. The Missouri State Medical Association should establish a statewide, noncoercive program for locating, contacting and offering rehabilitative help to physicians who have become impaired due to emotional illness or addiction to alcohol and mood altering drugs.
2. Educational programs on the Impaired Physician should be made available to hospital staffs, medical societies, medical auxiliaries, nursing organizations and hospital boards of trustees. These can assist in identifying the impaired physician as well as clarifying modes of referral.
3. Current lists of both inpatient and outpatient treatment resources both within and without the state should be established.
4. A 24-hour-a-day hotline number should be established and repeatedly publicized for both indirect and self-referral for help. Publicity could be accomplished through the Missouri State Medical Association journal.
5. Educational programs, and formal instruction, and courses should be provided for medical students and residents to make them aware of the incidence of emotional problems and danger of chemical addiction among medical professionals as well as to emphasize the importance of early recognition and treatment of such problems.
6. A Standing Committee on the Impaired Physician of the Missouri State Medical Association should be formed to recommend overall policy and budget recommendations. Membership should include some physicians who have recovered from alcohol and drug abuse and, as much as possible, represent the geographic areas of the state of Missouri.
7. Close liaison should be established with this Committee and the State Board of Registration for the Healing Arts and the Department of Mental Health, especially the Division of Alcoholism and Drug Abuse.
8. At all times, while being motivated by a humanitarian concern for the public and our fellow impaired colleague, every effort should be made to maintain strict confiden-

tiality of inquiries and status of physicians referred for help, breaking this silence only to avoid an imminent threat to society or the physician himself because of his behavior.

(Note: The list of references for this report can be obtained from the MSMA, P.O. Box 1028, Jefferson City 65102.)

Donald E. McIntosh, M.D., *Chairman*
Arnold S. Block, M.D.
David L. Ohlmes, M.D.
James E. Young, M.D.
John J. O'Hearne, M.D.
Henry V. Guhleman, M.D.

(Referred to Reference Committee on Medical Education and Public Welfare.)

## Reports of Commissions and Ad Hoc Committees

### REPORT OF COMMISSION ON PUBLIC AFFAIRS

Again in 1977, the Commission on Public Affairs sponsored a highly successful "Meeting of Component Medical Society Representatives" at the Lake of the Ozarks.

The meeting attracted 23 physicians from 17 component societies. Topics covered included Dr. McAlhany's "Action Plan," a summary of the proposed MOMEDICO, physician's assistants, PSRO, Public Education on Health Care, Medicaid-Medicare, AMA Membership, Continuing Medical Educations and others.

Those attending the meeting favored the continuance of such a gathering and suggested that future meetings be held on Saturday and Sunday sometime in September or October.

The Commission held its own meeting just prior to the Component Society Representatives' meeting. Perhaps the most important action taken was the recommendation that a survey be taken to analyze public opinion in regard to the medical profession.

The recommendation was presented to the MSMA House of Delegates and, following lengthy debate, was approved. The Commission is awaiting the results of the survey to determine which direction to proceed in during the coming year and future years.

Byron E. Watts, *Chairman*
R. A. Ritter, Jr.
Stanley G. Hall
A. J. Campbell
Sharon Waggoner
Wilber B. Spalding, Jr.
B. A. Moranville
Armand E. Brodeur
Daniel M. Fraser
Vernon H. Balster
Richard H. Loeb
Donald R. Germann
George Q. Dunmire
Jill M. Clayton
John M. Laird

(Referred to Reference Committee on Miscellaneous Affairs.)

### COMMISSION ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

The Commission met on Thursday, August 11, 1977 in Jefferson City, Missouri and held a conference call on January 17, 1978. Both meetings dealt extensively with the Medicaid program in Missouri.

The Commission discussed the actions in the 1977 Legislative Session which led to a $4 million increase over the recommendation of the Governor. It was observed that the more active physicians become in communicating the needs of the Medicaid program the more successful will be the results of their efforts. A resolution entitled, "Appropriation of a Reasonable Sum for Physician Services," was introduced by the Commission to the House of Delegates for the 1977 Interim Session. The resolution passed the House of Delegates and was acted upon by the Association.

The Commission also encouraged Dr. McAlhany, as president, to write each of the members of the Appropriations Committee to thank them for their efforts on behalf of the Medicaid program and to let them know this was only a first step toward saving the program and assuring them that the MSMA encourages participation in the program.

The Commission noted that the budget request for the 1978 Legislative Session is nearly $2 million less than the amount appropriated last year. The Commission recommended that the following resolution be drafted for use in the Appropriations Committee hearings in 1978:

> Whereas, $22.8 million were appropriated in the fiscal year 1978 for physician services under the Medicaid program, and
>
> Whereas, The fiscal year 1978 appropriation has not yet been shown to be adequate by economic analysis, and
>
> Whereas, The Governor has requested a sum of $20.6 million for physician services in his budget message for the fiscal year 1978, therefore be it
>
> *Resolved*, That the MSMA remind the Governor and General Assembly that the only way to assure quality medical care for patients in the Medicaid program and to obtain a high rate of physician participation is to appropriate enough funds in HB 1009 to provide a reasonable fee for physician services.

Resolution #18 from Annual Session 1977 was referred to the Commission on Medical Economics. The resolution regarded the withdrawal of support for PSRO in Missouri. Medical Economics undertook a study of PSRO and drafted a preliminary report on PSRO. Members of the Commission felt that this preliminary report was incomplete and more information will be gathered in 1978 so that a more complete report can be delivered to the Council.

The Commission also examined Resolution #21 from the Annual Session 1977. The members of the Commission encouraged the Council to explore the possibility of amending the Bylaws for reorganization so that the MSMA may serve its membership by negotiations on its behalf. Following the adoption of a Bylaw change and a recommendation of a Constitutional change allowed for negotiation, the Commission adopted the following resolution:

> *Resolved*, That a committee composed of MSMA members and staff be appointed to negotiate with the Division of Family Services to prevent further encroachment on the practice of medicine and to forestall curtailment of services to the patient which result in additional deterioration of the Medicaid program.

The Commission discussed the questions concerning arbitrary withdrawal of payment for certain professional procedures by third parties. The Commission noted that it is difficult for a medical organization to defend obsolete procedures. The Commission advises the Council that it is appropriate for third-party payors to define what services it will provide so long as the policyholder is informed of what is covered in his policy.

In both meetings, the Commission discussed several news releases regarding mandatory second opinions. The members expressed general approval of the AMA policy embodied in Resolution #77 of the June, 1977 AMA Convention. A resolution will be submitted by the Commission to Annual Session regarding mandatory second opinions.

The members of the Commission discussed the effects of the amendment to the Medicaid formulary which removed brand name drugs and replaced them with some generic. The Commission wishes to make the following recommendations:

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Intravenous administration should not be given because of increased likelihood of side effects.
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1. That the physicians of Missouri will continue to prescribe the most efficacious drug for each patient's needs.
2. The Commission regrets that the Division of Family Services chooses not to pay for certain proven drugs.
3. The Council should pursue all administrative remedies to alter the effect of the rule.

The Commission examined the ruling of HEW that a physician is not entitled to payment for any laboratory services not performed by him personally. The members are concerned that the ruling may unduly burden certain individual practitioners since Missouri does not pay a drawing or handling fee for the physician who uses any independent laboratory service. The Commission drafted a resolution and submitted it to the House of Delegates at the Interim Session. The resolution asked the MSMA to obtain a sponsor for legislation that would allow Medicaid to pay a drawing or handling fee. The Commission is following the progress of House Bill #1688, sponsored by Representative Randy Robb very closely.

The Commission recalled that it is the MSMA policy to support the single fee for single service concept in Medicaid payments. The Commission feels that with fees from physician services becoming a line item in the Medicaid budget that the timing may be appropriate for this additional modification.

The Commission also noted that as a result of its action in the action of the House of Delegates several years ago, it is the MSMA policy to support efforts toward establishing a single uniform procedure code for use on all insurance forms.

Following the announcement that HEW has delegated to Medicare carriers the responsibility for reporting one-hundred-thousand-dollar physicians under the Freedom of Information Act, recommendations were made to discover what other HEW funds are coming into Missouri. The Commission recommended that staff research the Freedom of Information Act toward the possibility of filing a request for information regarding both funds and administrative costs of HEW programs in Missouri.

A report of the Meeting of Component Medical Society Representatives asked the Commission to study the subject of overutilization of medical care. The Commission respectfully asked that this subject be referred to the Ad Hoc Committee on Medical Affairs headed by Richard V. Bradley, M.D.

The Commission also noted an article in the August, *Kansas City Times,* which described how economically HMOs have operated, but failed to mention the public funds which are necessary for them to pay their way. The Commission originally recommended that the Council respond to this, but later withdrew the recommendation because of the delay involved in answering the article.

The Chairman wishes to thank the members of the Commission for their interest and participation in the work of the Commission this past year.

Max A. Heeb, *Chairman*
Stanley S. Peterson
John R. Esther
James O. Lottes
R. Phillip Acuff
A. E. Braverman
Herbert C. Wiegand
Mary K. McCaffree
James L. Carpenter
Rae W. Froelich
E. Warren Allen
John A. Griffith, Jr.
Charles H. Cozean, Jr.
L. M. Magruder
Arturo C. Montes

(Referred to Reference Committee on Resolutions.)

**President-Elect John N. Martin addressed the House of Delegates and commented on important matters to be considered by the delegates.**

## REPORT OF THE COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

The Commission on Continuing Education and Health Manpower appointed two Ad Hoc Committees as follows: Ad Hoc Committee on Continuing Medical Education and Ad Hoc Committee—120th Annual Session. These Ad Hoc Committees implemented directives of the MSMA Council. Details of the committee action can be found in the Ad Hoc Committee reports published herein.

During 1977, the Commission with the cooperation of the Commission on Interspecialty Medicine have formulated the scientific sessions for the 120th Annual Session. The scientific portion of the 120th Annual Session has been approved by the American Medical Association for Category 1 credit and it is approved for prescribed and elective hours through the American Academy of Family Physicians.

The Commission, at the direction of the MSMA Council, discussed the Physician's Assistant Resolution and formulated recommendations that were submitted to the MSMA Council.

George H. Ladyman, *Chairman*
Ronald T. Hill
Wilbur A. Mullarky
Marvin A. Singleton
W. Wayne Boydston
W. Thomas Morgan, Jr.
George X. Trimble
William D. Bradshaw
Manuel R. Comas
John C. Soucy
Charles A. Worley
H. Peter Ekern
Richard Hedges
M. Kenton King
George D. Comfort

## REPORT OF THE AD HOC COMMITTEE— 120th ANNUAL SESSION

The Committee invited the members of the Commission on Interspecialty Medicine to sponsor and develop scientific sessions for the MSMA 120th Annual Session on April 13-16, 1978. The Committee is pleased to report the response was very gratifying with 27 scientific sessions being sponsored by 16 medical specialties including one general session and two programs sponsored by voluntary health agencies.

The Program Committee also encouraged each medical specialty to schedule its business and social functions during the MSMA Annual Session.

The Committee would like to express sincere appreciation to the representatives on the MSMA Commission on Interspecialty Medicine and the voluntary health agencies for the quality of programs sponsored during the 120th Annual Session.

George H. Ladyman, *Chairman*
Andrew McCanse
William C. Allen
W. Wayne Boydston
William D. Bradshaw
Patricio Avila
Kenneth Bruns
Marvin A. Singleton

## REPORT OF THE AD HOC COMMITTEE ON CONTINUING MEDICAL EDUCATION

The Ad Hoc Committee on CME is pleased to report on major accomplishments in the MSMA Voluntary CME Program. The Missouri State Medical Association, under the auspices of the Liaison Council on Continuing Medical Education, serves as an accrediting body for institutions and organizations which provide CME programs in the state of Missouri.

At the time the Voluntary CME Program was implemented, there were two facets that were identified:

(1) A program for accrediting institutions and organizations in Missouri as a sponsor for continuing medical education activities. There have been 24 institutions and organizations that have received accreditation and approximately 60%-70% of the MSMA membership now have direct access to CME activities. It is felt that such accreditation may serve as an incentive to institutions and organizations to provide programs that are based on actual and determined educational needs for physicians. The MSMA continues to focus its accreditation program upon the following categories of institutions and organizations:

(a) Local hospitals which have continuing medical education activities limited to hospital staff and physicians in the local community.

(b) Medical organizations which do not have national scope, e.g., state, county or other local societies.

(c) Local units of voluntary health organizations not under national administration for their continuing medical education.

(d) Other organizations and institutions which sponsor or promote continuing education for physicians, essentially local in nature and appropriate to the needs of the profession.

(2) A mechanism that would allow physicians to record their continuing medical education activities.

In cooperation with the AMA, the MSMA has implemented a sophisticated record keeping process capable of recording the individual physician's CME activities. To assist the physician in reporting his CME activities, a postcard has been developed, thus replacing the manila folder utilized earlier in this record keeping process. This postcard allows the physician to conveniently report all of his educational activities and will allow him to obtain an accurate up-to-date record of his activities semiannually. After the physician has obtained the necessary 150 hours of CME activities to qualify for the AMA Physician's Recognition Award, he will be notified and his Award will follow shortly thereafter.

This Committee would like to express its appreciation for the cooperation and interest of those who have made these accomplishments possible.

George H. Ladyman, *Chairman*
John R. Dixon
Patricio Avila
Kenneth Bruns
John C. Soucy
William D. Bradshaw
W. Wayne Boydston
George X. Trimble
Marvin A. Singleton
Bernard Draper

**(Referred to Reference Committee on Medical Education and Public Welfare.)**

## REPORT OF COMMISSION ON MEDICAL-LEGAL AFFAIRS

The Commission on Medical-Legal Affairs met on February 18, 1978 at the Columbia Inn in Columbia, Missouri. The Commission discussed the administration problems of the Professional Liability Review Board with Mr. Ron Kennedy, executive secretary of the Board.

The members learned that some of the more serious problems of the Professional Liability Review Board are the result of an inadequate list provided by the State Board of Registration for the Healing Arts. That list apparently contained names of physicians who were deceased, retired, living in Kansas or moved outside of the state.

The Commission has recommended to the Council that the MSMA consult with its membership to develop a list of panel members which qualifies with the statute in order to assist the State Board of Registration for the Healing Arts in fulfilling its statutory duty.

Dr. Charles Ash, as chairman of the Commission, has written to the President of the State Board of Registration for the Healing Arts and asked for his cooperation in revising the list of physician panel members. Royal O. Cooper reported that MOMEDICO is progressing rapidly. The Commission heard with interest the details of formation and the early plans for marketing the insurance plan.

The Commission will introduce a resolution regarding legal standards for expert medical witnesses for the business of the House of Delegates at this Annual Session.

In another action, the Commission referred a question of whether a physician should have a lien on patient records to staff for study.

## REPORT OF CONJOINT MEDICAL-LEGAL COMMITTEES OF MSMA, MISSOURI ASSOCIATION OF OSTEOPATHIC PHYSICIANS & SURGEONS AND MISSOURI BAR ASSOCIATION

The Conjoint Committees met on February 18, 1978 in Columbia, Missouri. Nineteen representatives were present, including nine MSMA members and staff.

The group heard a presentation of the progress of a House Committee Substitute for House Bill #1020 involving a legal standard for the determination of death. Those present voted to request each organization represented to send a letter of support for this legislation to the Speaker of the Missouri House of Representatives.

Mr. Ron Kennedy, Executive Secretary for the Professional Liability Review Board, gave a report on the progress

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- **not assessable**

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- **no deductible** for claims

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- **adequate limits**

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- **premises liability**

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- **personal injury coverage**

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of the activities of the panels to date. The six month hiatus between the effective date of the act and the actual creation of the Board imposed a backlog of 180 cases on the Board. As of the date of this meeting, 48 hearings had taken place, seven cases had been settled with 15 cases withdrawn and one case waived by stipulation of the parties. In 1977, 409 cases were filed with the Board. Already in 1978, 67 claims have been filed. One hundred and eight hearings are scheduled for March.

Mr. Kennedy related that some small problems may spell doom for the Board. First, the panel members were elected at random. Thirty to forty percent are from the St. Louis area. The statutory exclusion of any panel members living within a 50-mile radius has caused a burden on the outstate panel members who must serve on the St. Louis cases.

Secondly, major defects in the State Board of Registration for the Healing Arts' list provided the Professional Liability Review Board for its use has diminished the number of medical experts available for service on panels. The list contained Kansas residents (who are ineligible for the panel), retired physicians, deceased physicians and some who had moved from the state.

Mr. Kennedy expressed confidence that the panels served well the interests of all parties and the hope that the problems encountered to date would not be interpreted to mean that professionals are not cooperating.

The group directed many comments and questions to the executive secretary. Some involved the constitutionality of the statute which is presently before the Missouri Supreme Court. Others involve a reluctance on the part of some plaintiffs to fully prepare. Some recommended amending the statute to impose some penalty for less than a good faith effort before a panel. Other commentators expressed general approval of the way the Board has functioned as well as confidence that as claimants gain the knowledge that the panels are fair, the panels will be given more serious treatment.

The group agreed that the panel concept is doomed without full cooperation of all panel members and the parties involved. Appreciation was expressed that this cooperation is taking place in a majority of claims.

The conjoint committee voted 17-0 with two abstentions to deny the request of the Missouri Chiropractic Association to join the Interprofessional Code.

Charles J. Ash, *Chairman*
Joseph S. Cope
Jerome I. Simon
Irving H. Clark
Vicente D. Deles
George P. Wilson
Earl P. Holt, Jr.
William J. Medlicott
Bernard Draper
Robert L. Willcoxon
Harold B. Rapp
William R. McPhee
George L. Hawkins, Jr.
Noel R. Weyerich
Richard O. Craig

(Referred to the Reference Committee on Constitution and Bylaws.)

## REPORT OF THE COMMISSION ON INTERSPECIALTY MEDICINE

A meeting of the Commission on Interspecialty Medicine was held on August 20, 1977 and the following matters were presented with considerable discussion and participation:

A. Development of the 120th Annual Session with increasing emphasis on joint participation in the scientific sessions between specialty groups. This year, there are 27 scientific sessions sponsored by 16 medical specialties.

B. Members were brought up-to-date on such issues as HEW, FTC and fee schedules, patient audit, PSRO and HSA. These issues were brought to the attention of the Commission and it was asked that each specialty not think in terms of what the government is doing to the individual specialty, but what the government is trying to do to the medical profession in general. It was felt that medicine could present a solid front to the government in the future if the specialty groups in the state and national organizations would combine.

C. It was mentioned that many of the problems that face medicine today are due to the physician's inactions that have created vacuums that presently exist in the profession. Each physician should make a greater effort to get other members of the medical profession active to help stem the tide of paramedical personnel filling these vacuum areas.

D. The thrust of a motion passed was to identify and stay abreast of new medical ancillary personnel entering the health field.

At the Interim Session of the House of Delegates held in November, the Commission on Interspecialty Medicine, through its component members, was asked to conduct a review of obsolete and ineffective procedures unique to each specialty. The status of this study is in keeping with the time frame set by the chairman and several of the specialties are at varying stages of completing their review.

Thomas J. Cooper, *Chairman*
J. O. Alyea
Larry E. Millikan
Charles W. Chastain
C. Keith Whittaker
Michael F. Pernoud
Robert E. Kuhlman
Donald L. Thurston
Franz U. Steinberg
William H. McAlister
Cyril Costello
Clement B. Grebel
Elizabeth Heimburger
Raymond O. Frederick
Donald Youll
Milton B. Ozar
John Soucy
Carol F. Williams
William P. Lampros

(Referred to Reference Committee on Medical Education and Public Welfare.)

Dr. Lily Ann Hanes, Vice-Speaker, assumed the chair and asked for any supplementary reports from the committee and commission chairmen.

## Supplementary Committee Reports

### COMMITTEE ON CONSTITUTION AND BYLAWS

Dr. R. Stacey Long, chairman, presented the following supplemental report of the Committee on Constitution and Bylaws:

It has been noted that with the recent growth of the House of Delegates, provisions for 200 copies of late resolutions are inadequate to give each official delegate a copy. The following Bylaws change is aimed at eliminating this problem before it develops at future meetings:

Chapter 3, Section 1-A, Paragraph 2, the last sentence,

MSMA and Auxiliary members and guests look forward to attending the annual banquet on Saturday to honor MSMA past-presidents and enjoy the festivities and entertainment. Among them were *(left to right)* Mrs. Louis P. Hetlage and Dr. Hetlage of Troy and Dr. and Mrs. Hubert A. Ritter and Dr. and Mrs. Gerard M. Callaghan of St. Louis. Dr. Hetlage is councilor for the Fourth District and Dr. Ritter is a member of the AMA Board of Trustees.

# *The Annual Presidents' Banquet*

The new and retiring presidents exchange symbols of achievement at the banquet each year. *(Left)* Dr. McAlhany presents the historical presidential gavel to President John N. Martin who, in turn, presents the MSMA plaque of appreciation to Dr. McAlhany as retiring president for his dedication and accomplishments in 1977-1978.

The accordionist in the instrumental trio successfully serenades retiring President McAlhany and Mrs. McAlhany during the social hour preceding the banquet.

Mrs. Carl J. Ness and Dr. Ness of St. Joseph *(left)* enjoy visiting with Dr. and Mrs. Andrew J. Signorelli of St. Louis. Approximately 350 guests attended the banquet.

"A sufficient number of copies of the resolution for the use of the House of Delegates or funding for the same must be supplied by the individual or society introducing the resolution."

(Referred to Reference Committee on Constitution and Bylaws.)

### MSMF

Dr. Albert Cross, president of the Missouri State Medical Foundation, reported corrections for the 1977 MSMF financial statement as published in the March, 1978 issue of Missouri Medicine. He said that two omissions had occurred in the listing of contributions, namely, a $500 contribution from Dr. Max S. Franklin of St. Louis and a $100 contribution from the Boonville Medical Group.

He noted that the MSMA Auxiliary and several county auxiliaries had contributed $2,954.51 and expressed appreciation to the members and the Auxiliary for their support.

**(Referred to Reference Committee on Reports of Officers.)**

### MOMEDICO

Dr. Irving Clark reported briefly on MOMEDICO, stating that since February 24, MSMI had written some 50 policies with 100 physicians insured for an amount in excess of $350,000. He said that 150 replies resulted from the mailing and 50 applications are pending. The report does not include the first two weeks in April.

**(Referred to the Reference Committee on Reports of Officers.)**

**The vice-speaker requested any supplementary reports of the Council. She referred the various subjects within the Supplementary Report of the Council to appropriate Reference Committees.**

**(This report is published on page 350.)**

## THE COUNCIL

**The vice-speaker stated that the portions of the reports of Council Meetings which are referred to Reference Committees are preceded by a black square ( ■ ) and are concluded with the committee assignment, which is set in bold face type.**

### Meeting of April 17, 1977

■ Howard J. McAlhany, M.D., Springfield, President, and Andrew McCanse, M.D., Kansas City, Chairman, presided at the meeting at Stouffer's Riverfront Towers in St. Louis. Those present were Drs. McAlhany and McCanse; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes, St. Louis; Max S. Franklin, St. Louis; Richard Hedges, Excelsior Springs; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Walter German, Springfield; Claude W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Roy W. Pearse, Nevada; Gary Dyer, St. Joseph; Mary McCaffree, Jefferson City; I. H. Clark, Kansas City; Marvin Singleton, Joplin; Jack Wiles, West Plains; Mr. Ron Garrett, St. Louis; Mr. Roger Weis, Kansas City; Messrs. Royal O. Cooper, C. C. Swarens, Ron Ellison, Don Wilson and John Kuebler, Jefferson City, Staff.

#### ELECTION OF OFFICERS

President McAlhany opened the organizational meeting of the Council and introduced the new Councilors, who are Dr. Richard Hedges, Excelsior Springs, First District and Dr. John Walterscheid, Hannibal, Second District. He also extended his congratulations to the Councilors who were reelected. They are Drs. Louis P. Hetlage, Troy, Fourth District; R. John Torontow, Nevada, Sixth District; Walter A. German, Springfield, Eighth District; and Eugene T. Hansbrough, Poplar Bluff, Tenth District.

Dr. Andrew McCanse was elected Chairman of the Council and thereby became the presiding officer.

Dr. Richard V. Bradley was elected Vice-Chairman of the Council, Dr. John I. Matthews was elected Secretary and Dr. James M. Stokes was elected Treasurer.

Dr. McCanse introduced the newly elected Vice-Councilors, who are Drs. Gary Dyer, St. Joseph, First District; Patricio Avila, Hannibal, Second District; Richard Fallon, St. Louis, Third District; Frederick Peterson, St. Louis County, Fourth District; Mary McCaffree, Jefferson City, Fifth District; Roy Pearse, Nevada, Sixth District; Irving H. Clark, Kansas City, Seventh District; Marvin A. Singleton, Joplin, Eighth District; Jack Wiles, West Plains, Ninth District and George H. Ladyman, Poplar Bluff, Tenth District.

#### OFFICE OF MSMA VICE-PRESIDENT

Dr. Cooper indicated that over the years, the MSMA has had excellent vice-presidents of MSMA and it seems that their knowledge and experience should be used to assist the Association. He said that he would like to see the vice-presidents become more involved in the Association affairs. Dr. Hetlage stated that he felt that the vice-presidents should be kept aware of the ongoing business of the society and at least one of the vice-presidents should be invited to Council Meetings. Following a brief discussion, the motion was made, seconded and carried that a vice-president of the MSMA, designated by the President, be requested to attend all Council Meetings, until such time as a study of the vice-president situation can be made. His expenses are to be paid as an encouragement for him to attend the meetings. The Chairman is to appoint a committee to study this entire vice-president situation.

#### VICE-COUNCILOR ATTENDANCE AT COUNCIL MEETINGS

A question was raised regarding the vice-councilors' attendance at Council Meetings. The Chairman pointed out that vice-councilors will be invited to attend all Council Meetings. However, the MSMA will only assume the expenses of the vice-councilor if he is acting in the Councilors' absence.

#### BUDGET AND FINANCE COMMITTEE

Chairman McCanse indicated that he would appoint a Budget and Finance Committee for 1977-1978 before the next Council Meeting.

#### NEXT COUNCIL MEETING

The next meeting of the MSMA Council will be held on Friday evening, June 3 and Saturday, June 4 at the Ramada Inn in Jefferson City.—**Referred to the Reference Committee on Reports of Officers.**

### Meeting of June 4, 1977
### Ramada Inn, Jefferson City

■ Andrew McCanse, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. McCanse; Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes, St. Louis; Max S. Franklin, St. Louis; Stanley S. Peterson, Springfield; Richard C. Hedges, N. Kansas City; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage,

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Troy; H. Peter Ekern, Mexico; Roy W. Pearse, Nevada; Walter German, Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Gary Dyer, St. Joseph; Richard Fallon, St. Louis; Mary McCaffree, Jefferson City; Jack Wiles, West Plains; Rae W. Froelich, Lebanon; James Sisk, St. Louis; Lawrence W. O'Neal, St. Louis; Robert A. Slickman, Kansas City; William Stoneman, St. Louis; Charles Lobeck, Columbia; R. K. Noback, Kansas City; George Hawkins, St. Louis; William C. Allen, Columbia; Tom Anderson, Columbia; John Roberts, St. Louis; Herbert R. Domke, Jefferson City; Mrs. W. Jack Stelmach, Kansas City; Mrs. A. J. Campbell, Sedalia; Messrs. Gordon R. Garrett, St. Louis; Edward Hirsch, St. Joseph; James Thompson, Springfield; Royal O. Cooper, C. C. Swarens, Ron Ellison, Don Wilson and John Kuebler, Staff.

Chairman McCanse opened the meeting by extending a warm welcome to the Vice-Councilors and Vice-President, Stanley S. Peterson, M.D.

Dr. McCanse called for approval of the minutes of the April 17 Council Meeting held in St. Louis. On motion, duly seconded, the minutes were approved as distributed.—**Referred to the Reference Committee on Reports of Officers.**

### REPORT OF THE EXECUTIVE SECRETARY

■ Mr. Cooper indicated that the Governor has established a Task Force on Physical Fitness and Mr. C. C. Swarens represents the Association on this Task Force. If in the future a Council is established, it, hopefully, will include a physician member.

Mr. Cooper pointed out that again this year, the Board of Healing Arts is including a statistical questionnaire with license renewal notices, but this questionnaire is strictly voluntary.

Mr. Cooper stated that he had received a letter of appreciation from Dr. Domke for the Association's support of the establishment of county health centers. In the past 16 months, 21 counties have voted in county health centers.

Mr. Cooper called the Council's attention to a new enterprise in Columbia that will soon be setting up a statewide project on medical alert systems. They are contemplating calling on officers of county medical societies and hospitals. Mr. Cooper stated that we are in no way endorsing this, but only calling their attention to it.—**Referred to the Reference Committee on Miscellaneous Affairs.**

■ Mr. Ellison asked Council approval for the following institutions to sponsor Category I CME programs as designed by the AMA, indicating that the CME site team has made the following recommendations:

| | |
|---|---|
| Children's Mercy Hospital, Kansas City | 3 years |
| Methodist Hospital, St. Joseph | 2 years |
| St. Louis Society for Medical Education | 2 years |
| Fairfax Hospital, Fairfax | 2 years |
| St. John's Medical Center, Joplin | 1 year (Provisional) |
| St. Luke's Hospital, Kansas City | 3 years |

On motion, duly seconded, the Council approved the above institutions for CME accreditation.

Mr. Ellison told the Council that with the 16 institutions and organizations that have been approved for CME in Missouri, this affords two thirds of the MSMA membership direct access to approved continuing education programs.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### COUNCILOR DISTRICT REPORTS

■ Dr. Hedges, *District #1;* Dr. Walterscheid, *District #2;* and Dr. Bradley, *District #3* indicated they had no reports at this time.

*District #4*—Dr. Hetlage reported that the following items were considered at the meeting of his Councilor District officers and delegates held recently.

Dr. Hetlage said that a discussion was held concerning a suggested change in policy on the part of National Blue Shield which would eliminate coverage for certain surgical procedures which, in their opinion, have become obsolete.

Following brief discussion, Dr. Sisk reminded the group that this was only a suggestion from the National Federation and that resistance from the local organizations could reverse the decision.

Several councilors voiced their concern regarding the manner in which the National Association of Blue Shield Plans makes suggested changes. It was felt that this should have been referred to local Blue Shield Plans prior to announcing it to the public.

On motion, duly seconded, the Council referred to the Commission on Medical Economics the problem of arbitrary withdrawal of payment for certain professional procedures by third parties. The Commission is to study this problem and report back to the Council.—**Referred to the Reference Committee on Resolutions.**

■ Dr. Hetlage reported that his Delegates made several suggestions regarding modernization of the MSMA Constitution and Bylaws. Several of the suggestions made were in regard to the MSMA Vice-Presidency.—**Referred to the Reference Committee on Constitution and Bylaws.**

■ A discussion was held in the Fourth District concerning advisory commissions which will function as HSAs without any legal authority. In many instances in the St. Louis area, they are attempting the promulgation of rules concerning additional hospital beds and to further delay hospital expansion without legal authority.

Dr. Hetlage reported that his Delegates discussed National Health Insurance. The Delegates felt the major issue for the medical profession at this time is an awareness of the high cost of medical care and the factors which are influencing this high cost. The following factors were considered to be influences over which the medical profession presently has no control: (1) Malpractice problems; (2) Government regulations; (3) Joint Commission regulations; (4) Group Insurance Contracts; (5) Hospital required routine laboratory work; (6) Lack of weekend services at hospitals. The factors over which we do have some control in which physicians themselves could lower the cost of medical care are as follows: (1) Utilize as many outpatient services as possible; (2) Encourage day care centers; (3) Encouragement of self-care centers; (4) Judicious use of specialty care units; (5) Judicious utilization of hospitals as terminal care repositories; (6) Reduction of laboratory and X-ray utilization to only those tests which are necessary to document the illness in question; (7) Encourage the use of outpatient laboratory work done prior to admission as being a valid portion of chart documentation; (8) Reduction of length of stay.

In summary, Dr. Hetlage indicated that the discussion regarding this was preliminary and will be continued at future councilor district meetings. It is the feeling of the delegation that physicians should individually take the opportunity to speak out on the matter of medical care costs in order to demonstrate to the public that as a profession, we are concerned with the problem and are attempting to deal with it without government intervention.

District #4 delegates discussed the matter of mandatory second opinions. This policy is being proposed by many large insurance companies and a proposal has been made in Congress. Dr. Hetlage indicated that his delegates did not object to surgical consultation as a principle of good medical care, but they object strongly to consultation being mandatory as further intrusion by third parties into the practice of medicine.

The Chairman, Dr. McCanse, referred the above matter regarding mandatory second opinions to the Commission on Medical Economics for their study.—**Referred to the Reference Committee on Resolutions.**

■ Dr. Hetlage indicated that Dr. Sam Bonney has been appointed as Consultant to the Bureau of EMS of the State of Missouri. It was Dr. Bonney's suggestion that the need for an Ad Hoc Committee on EMS is important at this time. Dr. Hetlage moved that the Ad Hoc Committee be reappointed and reactivated. Dr. McCanse indicated that this would be accomplished.—**Referred to the Reference Committee on Miscellaneous Affairs.**

■ A discussion was held regarding the work of the Ad Hoc Committee on Physicians' Assistants. Dr. McCanse indicated that the work of the Ad Hoc Committee had been completed and the matter was referred to the Commission on Continuing Education by the 1977 House of Delegates.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

■ *District #5*—Dr. Ekern introduced Dr. Mary McCaffree from Jefferson City as his Vice-Councilor.

Dr. Ekern reported that a meeting organized by the local PSRO is to be held in Mexico on June 7. Representatives of General American, Blue Cross-Blue Shield, Title XIX, Part A will discuss coverage, limitation of coverage and any particular problems anyone is having with these organizations.—**Referred to the Reference Committee on Resolutions.**

■ *District #6*—Dr. Pearse indicated he had no report at this time.

*District #7*—Dr. McCanse reported that the Jackson County Medical Society is setting up guidelines for the use of CAT scanners in their area. These are patterned after guidelines of the American College of Radiology and will probably be acted on at the June meeting of the Medical Society.

*District #8*—Dr. German reported that District #8 is continuing to be involved in the educational process. The Greene County Medical Society is now the third in the state to co-sponsor the Tel-Med System; the CME Program is now operational.

Dr. German said that the special field secretary from the MAFP asked that he inform the Council regarding his recent activities. Under a federal grant he is traveling to all small counties talking to most of the practitioners in those areas about their medical manpower needs. He also is talking to FP residents in the state and trying to bring the two together. The MSMA is not really involved in this. However, he did wish us to be aware of his activities.

*District #9*—Dr. Cooper introduced Dr. Jack Wiles, West Plains, as his Vice-Councilor. Dr. Cooper then indicated that they do still have a manpower shortage in his district.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

■ Dr. Cooper discussed the office of MSMA Vice-President indicating that he feels they should be selected on their knowledge and expertise and also should be used by the Association in various capacities. Dr. Cooper is chairman of an Ad Hoc Committee to study the Vice-Presidency of MSMA.—**Referred to the Reference Committee on Constitution and Bylaws.**

■ *District #10*—Dr. Hansbrough reported that the PSRO in his area is active at the present time. He indicated that there are some problems involved. However, they will continue to try to resolve them.—**Referred to the Reference Committee on Resolutions.**

■ Dr. Hansbrough pointed out that there are several specialty organizations that do not meet in conjunction with the MSMA Annual Session and that contacts should be made to encourage them to consider holding a second meeting during our annual session. He suggested that the Councilors talk to local leaders of these organizations and, possibly, the Council consult the presidents of these organizations indicating that we would like to discuss this.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### REMARKS OF THE PRESIDENT

■ Dr. McAlhany indicated that the House of Delegates approved Resolution #16 regarding our Opposition to a Generic Formulary for Medicaid. A copy of this resolution was sent to the Division of Family Services along with a letter inquiring who would be liable if an adverse reaction occurred as the result of substitution. They agreed that this was a cost containment measure and that the drug company and not the Division of Family Services would be liable. Missouri Pharmacist Law prohibits a pharmacist from substitution without written permission of the physician.

Dr. McAlhany stated that Missouri's outlay per Medicaid patient per month is the lowest in the nation, $60. He stated that it is time for a President's page on Medicaid in Missouri Medicine.

Dr. McAlhany discussed the funding for the Medicaid Program which will be presented in the Legislative Committee Report.—**Referred to the Reference Committee on Resolutions.**

■ President McAlhany discussed the apparent confusion regarding AMA direct billing of certain Missouri physicians who are non-AMA members. Our AMA delegation had been instructed previously to oppose direct billing by the AMA. It was referred back to the Board of Trustees at the last AMA meeting.

### MSMA AUXILIARY REPORT

Mrs. Stelmach introduced Mrs. A. J. Campbell of Sedalia, the President-Elect of the MSMA Woman's Auxiliary. She reported that the Auxiliary had 204 register at their Annual Session. Mrs. Stelmach attended the Illinois, Iowa and Kansas auxiliary meetings and will attend the National Convention in San Francisco. The Auxiliary now has four members on the National Board in elected or appointed positions.

Mrs. Stelmach requested Council approval on the following projects:

1. *Heimlich Poster Distribution*—On motion, duly seconded, the Council approved the Auxiliary's continuing distribution of the Heimlich poster to various restaurants, schools, etc.
2. *AMA-ERF*—On motion, duly seconded, the Council approved the Auxiliary's continuing its usual methods of raising monies for the AMA-ERF.
3. *CPR Project*—Mrs. Stelmach reported that the Auxiliary would like to work with the American Heart Association in a CPR Project to train instructors in the Auxiliary in order to train Auxiliary members and lay persons in basic life support to help the Heart Association goal of one rescuer in every four persons. On motion, duly seconded, the Council approved the Auxiliary's participation in this project.
4. *Health Education*—Mrs. Stelmach indicated that in the health education area, the Auxiliary would like to (a) Continue its immunization project done in cooperation with the Missouri Division of Health; (b) Explore new methods of immunization education with the Division of Health trying a method of reaching new mothers; (c) Re-design a small, handout pamphlet for parents to be given out through PTAs. On motion, duly seconded, the Council approved of these Health Education projects.

Mrs. Stelmach indicated that the Auxiliary would continue monitoring Missouri HSAs to keep the Association office abreast of activities in these areas and also will continue its legislation education programs.

It was suggested that the Auxiliary also monitor PSROs in the state.—**Referred to the Reference Committee on Reports of Officers.**

### RESOLUTION REGARDING REDISTRICTING

■ Dr. Franklin reported that following the MSMA Annual Session, there had been considerable discussion regarding the MSMA Constitution and Bylaws and possible redistricting. In this light, Dr. Franklin introduced the following resolution for the Council's approval:

> Whereas, It is now legal according to the United States Supreme Court that the principle of "one man-one vote" exists, and
>
> Whereas, This principle does not exist in the Missouri State Medical Association at this time, and
>
> Whereas, We feel that we must be consistent with the Laws of our Country, and
>
> Whereas, The present distribution of our Councilor Districts is obviously unfair and faulty with the following distribution of our membership in 10 Districts:

| | |
|---|---|
| District # 1 | 278 |
| District # 2 | 65 |
| District # 3 | 1,705 |
| District # 4 | 669 |
| District # 5 | 368 |
| District # 6 | 123 |
| District # 7 | 1,015 |
| District # 8 | 398 |
| District # 9 | 53 |
| District #10 | 242 |
| Total members | 4,916 |

> and,
>
> Whereas, The task of redistricting will be a difficult and ardous labor, therefore, be it
>
> *Resolved,* That a Blue Ribbon Ad Hoc Committee be selected to include the President and the President-Elect of the Missouri State Medical Association and the Chairman and Vice-Chairman of the Council for the purpose of working out a more equitable distribution and redistricting of our membership so as to follow the principle of "one man-one vote," and be it further
>
> *Resolved,* That when this Committee accomplishes its duty that a Constitutional Convention be called to act upon the recommendations of the Committee.

Brief discussion followed and it was pointed out that if redistricting does take place, there should be only one councilor from any one district.

On motion, duly seconded, the Council referred the above resolution to the Committee on Planning for further study and recommendation. It also was recommended that the President, President-Elect, Chairman and Vice-Chairman of the Council attend meetings of this Committee when this subject is being discussed.—**Referred to the Reference Committee on Constitution and Bylaws.**

### ACTIONS ON THE RESOLUTIONS OF THE 1977 HOUSE OF DELEGATES

■ The following actions have been taken on resolutions passed by the 1977 MSMA House of Delegates at its Annual Meeting in April, 1977:

*Resolution #1*—Health Professions Educational Assistance Act H.E.W. informed; Resolution submitted to AMA.

*Resolution #2*—Direct Billing by AMA. AMA Board informed of action.

*Resolution #4*—Chemotherapeutic Insurance Coverage. Refer to Committee on Legislative Affairs.

*Resolution #5*—Task Force on Professional Liability. Legal counsel opinion obtained.

*Resolution #6*—Licensure of Physician Assistants. Resolution was *not* adopted, but one paragraph was referred to the Council. The entire Resolution will be referred to Commission on Continuing Education and Health Manpower.

*Resolution #7*—Formation of Resident Physician Section in MSMA. Refer to Committee on Constitution and Bylaws; inform county societies.

*Resolution #8*—Unified Membership with AMA. Refer to Committee on Constitution and Bylaws; inform county societies.

*Resolution #9*—Impaired Physicians. Establish an ad hoc committee. Dr. McCanse indicated he would speak with the author of the resolution and appoint an ad hoc committee.

*Resolution #10*—Definition of Primary Care. Reprinted in MSMA Policy Manual.

*Resolution #11*—Physician on AMA Department of Negotiations. Resolution submitted to AMA House.

*Resolution #12*—Optometric Legislative Activity. Board of Healing Arts informed; Referred to Committee on Legislative Affairs; Legislature and Governor to be mailed Resolution if similar legislation introduced next Session.

*Resolution #13*—Medicaid Reimbursement. Division of Family Services informed; Referred to Commission on Medical Economics to develop contingency plan for care of the poor in the event Medicaid Program collapses. Referred to Legislative Committee for information.

*Resolution #15*—Opposition to Physician Assistants. Reprinted as Association policy. Referred to Commission on Continuing Education and Health Manpower.

*Resolution #16*—Medicaid Generic Formulary. Division of Family Services informed.

*Resolution #17*—Involvement in HSAs. Reprinted as Association policy.

*Resolution #18*—Sever Relations with PSRO. Referred to Commission on Medical Economics, Third Party Medicine and Governmental Relations.

*Resolution #21*—Preservation of Quality Medical Care. Resolution submitted to AMA; Referred to Commission on Medical Economics, Third Party Medicine and Governmental Relations.

*Resolution #23*—Psychiatric Representation on Mental Health Commission. Referred to Committee on Legislative Affairs; Legislators and Governor will be notified next Session.

*Resolution #24*—Health Data Corporation. Health Data Corporation informed. MSMA Representatives informed.

*Resolution #25*—Repeal of Delaney Amendment. Referred to Committee on Legislative Affairs.

*Resolution #26*—Reversal of Ban on Saccharin. Resolution submitted to AMA; Letters to Missouri Congressional Delegation, Food and Drug Administration and Department of HEW.—**Referred to the Reference Committee on Reports of Officers.**

### REMARKS OF DELEGATES TO THE AMA

■ Dr. Froelich, Senior AMA Delegate, indicated that plans have been made for the AMA Annual Session regarding Committee assignments, caucuses, etc. The Missouri Delegation has submitted three resolutions to the AMA as directed by the MSMA House of Delegates. Abstracts of all resolutions are appearing in issues of *AMA News* and the Council was asked to review them.

Dr. Froelich stated that the Council might consider sending one or more Council members to the AMA meetings,

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| | | | *200/600* | | *$1 Mil. Excess* | |
|---|---|---|---|---|---|---|
| | | | *First Yr.* | *Renewal* | *First Yr.* | *Renewal* |
| **Class** | I | No Surgery | 594 | 374 | 464 | 288 |
| | II | Minor Surgery | 983 | 563 | 768 | 432 |
| | III D | Urologist, Ophthalmology, Proctologist | 3,744 | 2,304 | 2,880 | 1,728 |
| | IV B | General Surgeon | 4,880 | 3,080 | 3,840 | 2,400 |
| | IV A | Otolaryngologists, OBGYN, Plastic | 6,243 | 3,795 | 4,896 | 2,938 |
| | IV G | Thoracic, Neuro, Orthopedists | 7,956 | 4,836 | 6,240 | 3,744 |
| | IV H | Anesthesiologists | 8,434 | 5,074 | 6,624 | 3,936 |

**Outstate Premiums for Physicians and Surgeons**

| | | | *200/600* | | *$1 Mil. Excess* | |
|---|---|---|---|---|---|---|
| | | | *First Yr.* | *Renewal* | *First Yr.* | *Renewal* |
| **Class** | I | No Surgery | 540 | 340 | 400 | 240 |
| | II | Minor Surgery | 819 | 469 | 640 | 360 |
| | III C | Urologist, Ophthalmology, Proctologist | 3,120 | 1,920 | 2,400 | 1,440 |
| | IV C | General Surgeon | 4,067 | 2,567 | 3,200 | 2,000 |
| | IV D | Otolaryngologists, OBGYN, Plastic | 5,202 | 3,162 | 4,080 | 2,448 |
| | IV E | Thoracic, Neuro, Orthopedists | 6,630 | 4,030 | 5,200 | 3,120 |
| | IV F | Anesthesiologists | 7,028 | 4,228 | 5,520 | 3,280 |

The premium assessments are subject to adjustment based on actual claims experience. Additional classifications and rates for limits of 100/300, 200/400, and 500/1 Mil are available.

For More Information Contact:
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1031 E. Battlefield—Suite 117B
Springfield, Missouri 65807
Phone 417-883-0199 or 1-800-492-7212 (Toll Free)

perhaps on a rotating basis. He feels they could be of invaluable assistance in helping the delegation and would create a more effective rapport between the grass roots, state society and the AMA.

Dr. Hetlage indicated his agreement with this suggestion and indicated that perhaps the Chairman and Vice-Chairman of the Council and, possibly, one other councilor be designated to attend AMA meetings at MSMA expense. Dr. Froelich's feeling was that, perhaps, newly elected Councilors should be the ones to attend. It was suggested that this matter be sent to the Budget and Finance Committee for consideration at their December meeting.—**Referred to the Reference Committee on Resolutions.**

### REPORT OF THE DEANS

■ Dr. Charles Lobeck, Dean, University of Missouri School of Medicine-Columbia, reported that in May they graduated 116 students of which 53% are going into primary care residencies. Forty-three are remaining in the state for their training.

He mentioned that they have made several additions to the faculty.

Dr. William Stoneman, Assistant Dean, St. Louis University School of Medicine, reported that they graduated 150 students in May. They also have made some additions to the faculty. The Learning Resource Center is open and they have applied to the AMA for institutional accreditation for a university CME Program.

Dr. Stoneman reported that Dr. Challoner was optimistic that there will be an amendment to the Health Manpower bill.

Dr. Stoneman stated that they reluctantly will have a tuition increase based on a complex formulary contingent on the amount of federal capitation support.

Dr. Noback, Dean, University of Missouri-Kansas City School of Medicine, indicated they graduated approximately 40 students of whom two thirds are in primary care residency programs and approximately two thirds will remain in this area.

Dr. Noback reported that a site visit was made to the School by the Liaison Committee on Education. Although no report has as yet been received from the committee, Dr. Noback is encouraged by the site team.

Dr. Noback stated that the school has grown a great deal, both in regard to faculty members and facilities. The Truman Medical Center is open with more beds being available in July and again in the middle of the fall.

Dr. Noback expressed his concern regarding the federal capitation level of funding.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### COUNCIL ADVISORS

■ Chairman McCanse made the following appointments as Councilor Advisors to the respective MSMA Commissions:

| | |
|---|---|
| Continuing Education and Health Manpower | Andrew McCanse, M.D. |
| Interspecialty Medicine | Richard V. Bradley, M.D. |
| Medical Economics, Third Party Medicine and Governmental Relations | R. John Torontow, M.D. |
| Medical-Legal Affairs | Walter German, M.D. |
| Public Affairs | Louis P. Hetlage, M.D. |

### MATTERS CONSIDERED AT EXECUTIVE SESSION

Dr. McCanse indicated that in the Executive Session the previous evening, the Council took the following actions:

1. Approved a premium increase for our major medical program.
2. Approved changes in MSMA Employees' Blue Cross-Blue Shield Plan and Pension Program.
3. Voted to contribute $500 toward the construction of a statue in St. Louis honoring Dr. Thomas Dooley.—**Referred to the Reference Committee on Reports of Officers.**

■ 4. The Chairman appointed a special committee composed of Drs. Stokes, Chairman; German, Franklin and Bradley to study the subject of Missouri State Medical Association recognition of St. Louis Blue Cross. This Committee is to communicate with Mr. Shelton of St. Louis Blue Cross to discuss the problems and invite Mr. Shelton to attend the Council meeting in December.

Dr. Hansbrough stated that he hoped the committee would not consider this Blue Cross situation as strictly a metropolitan problem. Dr. Stokes indicated that the Committee would welcome any suggestions or input from the MSMA membership regarding St. Louis Blue Cross.

Dr. Hetlage recommended that due to Dr. John Laird's previous experience in working with the Blue Cross situation, that he be contacted for any assistance he might provide.—**Referred to the Reference Committee on Resolutions.**

### BUDGET AND FINANCE COMMITTEE

■ The Budget and Finance Committee members for 1977-1978 are Drs. Stokes, Chairman; McAlhany, Martin, McCanse, Bradley and Torontow.—**Referred to the Reference Committee on Reports of Officers.**

### MISSOURI PSYCHIATRIC ASSOCIATION

■ Dr. Thomas Anderson, Columbia, representing the Missouri Psychiatric Association, requested Council endorsement of a resolution regarding objection to a recent ABC telecast, "Medicine and Madness." The American Psychiatric Association has requested equal time for rebuttal to this telecast.

After a brief discussion, a motion was made, seconded and carried to support the Missouri Psychiatric Association in its stand objecting to this telecast. It was further agreed that the MSMA send a letter of opposition to this telecast to Mr. John Duffy, ABC Television Network President.—**Referred to the Reference Committee on Miscellaneous Affairs.**

### AREA II HSA

■ Dr. Ekern asked Dr. Anderson to speak briefly regarding Area II HSA activities. Dr. Anderson serves as the MSMA representative on the HSA Area II Council. Dr. Anderson indicated that he feels they have a very good staff and are moving progressively within the law. Area II does have a large rural population and, thus, it is necessary for them to have local input into the program. Dr. Anderson indicated that he feels their Area is probably the leading one in the nation as far as the use of Subarea councils are concerned. Dr. Anderson indicated that there are four physicians on the HSA Area II Council—two M.D.s and two D.O.s.—**Referred to the Reference Committee on Resolutions.**

### LEGISLATIVE REPORT

■ Dr. John I. Matthews, Chairman of the Legislative Committee, gave the following report:

Dr. Matthews indicated that we received a 10% increase in funding for physician services under Medicaid. Not nearly what we wanted, but it's $5 million more than the Governor requested and $2 million more than last year's budget. The figure for the current year will be $23.4 million and, hopefully, we will be able to have physician services designed as a "'line item" in the budget. That means this money could be used *only* to pay physician services.

With just a few days remaining in the Session, several health-related bills still have a chance for passage. SB 48, which would lower the age of consent for medical treatment to 18, has passed both houses in slightly different forms and a final decision should be made soon.

Bills which have passed one house and, quite possibly, could be finally considered before adjournment include the following: SB 305, which provides loans for medical students who agree to practice in rural or hardship areas; HB 726, which would allow coroners to harvest pituitary glands; HB 255, which provides for licensing of psychologists; HB 211, an optician licensing bill; SB 322, which requires health insurance policies to cover hospitalization for alcoholism; and HB 341, which decriminalizes alcoholism.

Five bills which were opposed by the MSMA are dead for this Session. These are HB 240, which would have allowed chiropractors to issue teacher's health certificates; HB 850, which would license physician assistants; SB 36, which would require that prescriptions be written on numbered forms; SB 228, which would expand the practice of chiropractic by giving their state board more power; and SB 374, which would allow optometrists to use topically applied drugs.

Another bill opposed by the Association, HB 589, which would place strict control over radiology, has apparently been derailed.

The three bills dealing with the medical malpractice situation are also dead this year. These bills join several attorney malpractice bills and product liability bills which were not favored by the Legislature. The proposed bills would have provided for payment of malpractice awards in installments rather than in a lump sum, deduct payments received by a patient from other sources from his malpractice award and require medical expert witnesses in malpractice cases to be from Missouri or a contiguous state.

Other bills which have been killed include SB 50, which includes "brain death" as a definition of death; HB 235, a "Good Samaritan" bill; and HB 791, which would have established funding for residencies in family practice.

Two committees are expected to be named by the General Assembly to study specific issues during the summer and fall and prepare specific proposed bills. The Association will provide testimony before these committees on issues of interest to medicine.

We may have a new twist, and not a good one, to put up with in forthcoming Sessions if the House and Senate adopt a proposed rule change. Basically, the rule would work like this: Any House or Senate Bill which was reported out of committee, but not acted upon by the full body, would, at midnight on the night of adjournment, be placed in the hands of the Speaker or President Pro Tem, depending on which house the bill originated.

If the Speaker or Pro Tem chose, he could re-refer a bill back to the same committee that heard it in the previous Session. If he does this, the committee would not have to hold additional hearings on that bill and could immediately recommend that the bill Do Pass.

If the Speaker or Pro Tem assigns a bill to a different committee than the committee that had previously held a hearing on that bill, then another hearing would have to be conducted.

The problem caused by the proposed rule is that for several years our legislator-friends have been able to delay votes on bills the Association opposed until it was too late in the Session for them to pass. Then, because of the pressure our friends received from the opposition, the bills would be passed out of committee.

If the new rule is adopted, these "bad" bills currently far down on the calendar could be in a good position to be considered by the entire General Assembly next year.

Dr. Matthews expressed appreciation to MSMA staff members for their tremendous amount of time and effort expended during this legislative session.

Dr. McCanse thanked Dr. Matthews for the splendid job he does as Chairman of the Legislative Committee and in keeping the membership informed.—**Referred to the Reference Committee on Miscellaneous Affairs.**

### COUNTERSUITS

■ Dr. George Hawkins, Chairman of the Ad Hoc Committee on Professional Liability, called the Council's attention to Resolution #5, which was adopted by the House of Delegates at the 1977 Session. This resolution instructed the MSMA to "expend funds from the Missouri State Medical Insurance funds relegated for medical liability defense to obtain suitable legal counsel to perform the basic legal research necessary for the successful pursuit of counterclaims in medical liability cases."

Dr. Hawkins indicated that he has located a reputable St. Louis law firm that is willing to do the basic legal research to advise doctors relative to the filing of counterclaims in medical liability cases and urged the Council to proceed with these research plans.

A lengthy discussion followed regarding the pros and cons of (1) is this legal research necessary? (2) should the MSMA become involved in recommending that a counterclaim be filed; and (3) what are MSMI defense funds?

Present MSMA Legal Counsel has been contacted regarding this matter and it is their feeling that extensive research would serve no useful purpose and that it would be much better to do the research after the request for assistance has been made in each individual case in order that we might have available essential facts in a particular case.

After further discussion, it was moved and seconded that the above matter regarding counterclaims be referred to the MSMA Executive Committee for study and report back to the Council at the September Meeting. It was recommended further that MSMA Legal Counsel and the MSMA staff attorney be invited to attend any meetings of the Executive Committee pertaining to this matter.—**Referred to the Reference Committee on Constitution and Bylaws.**

### INTERIM SESSION

■ Dr. McCanse indicated that the MSMA Interim Session will be held November 2-3 at Howard Johnson's in Springfield.

The Council was reminded that this Interim Session of the House of Delegates will be a regular meeting of the House and will not be limited to legislative matters only. The deadline for submission of resolutions for the Handbook will be September 19.

### AMA 1978 ANNUAL SESSION

Dr. McCanse indicated that a committee will be appointed to work with the AMA regarding arrangements for the 1978 AMA Annual Session.—**Referred to the Reference Committee on Reports of Officers.**

### MISSOURI HEALTH DATA CORP

■ Chairman McCanse indicated to the Council that their folders contained a copy of a quarterly report from the Missouri Health Data Corporation which would bring them up-to-date on its activities. Dr. Stokes suggested that copies of these reports be sent to each Councilor District.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### 1979 ANNUAL SESSION OF MSMA

■ On motion, duly seconded, the Council recommended that the 1979 Annual Session be held on April 4-8 at Stouffer's Riverfront Towers, St. Louis.

### FUTURE COUNCIL MEETING DATES

Dr. Martin invited the Council to St. Joseph for its September Meeting to be held at the Ramada Inn on September 9-10. The December Meeting of the Council will be held at the Hilton Inn in Columbia.—**Referred to the Reference Committee on Reports of Officers.**

### Meeting of Sept. 10, 1977
### Ramada Inn, St. Joseph

■ Andrew McCanse, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. McCanse, Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes, St. Louis; Max S. Franklin, St. Louis; Stanley S. Peterson, Springfield, I. H. Clark, Kansas City; Richard C. Hedges, North Kansas City; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Walter German, Springfield; Claude W. Cooper, Thayer; George H. Ladyman, Poplar Bluff; Gary Dyer, St. Joseph; Richard Fallon, St. Louis; Jack Wiles, West Plains; Marvin Singleton, Joplin; James C. Sisk, St. Louis; Rae W. Froelich, Lebanon; Lawrence W. O'Neal, St. Louis; Robert A. Slickman, Kansas City; Melvin Kasten, Cape Girardeau; Lily Ann Hanes, St. Louis; James Whittico, St. Louis; H. B. Ivy, Springfield; Loren Washburn, Versailles; R. K. Noback, Kansas City; George Thoma, St. Louis; William C. Allen, Columbia; Thomas J. Cooper, St. Louis; Dr. and Mrs. A. J. Campbell, Sedalia; Mrs. W. Jack Stelmach, Kansas City; Messrs. Hamilton, Danis and Stokes, Rollins Burdick Hunter, St. Louis; Gary Clark, Jefferson City; Allen Smith, Kansas City; Ron Garrett, St. Louis; Eddie Hirsch, St. Joseph; James Thompson, Springfield; Royal Cooper, Ray McIntyre, C. C. Swarens, Ron Ellison, Don Wilson and John Kuebler, Staff.

### APPROVAL OF MINUTES

The Chairman opened the meeting and called for approval of the minutes of the June 4 Council meeting held in Jefferson City. On motion, duly seconded, the minutes were approved as distributed.

### SECRETARY'S FOLDER

Mr. Cooper reported that we have been informed by the Region VII office of HEW that it will keep us informed in regard to the development of national health insurance hearings and would appreciate our participation in these hearings. As of this date, we have not been informed of any specific hearings to be held in Region VII.

Mr. Cooper asked the Council for permission to proceed with planning a two-day workshop sometime in 1978 regarding "Establishing Yourself in Medical Practice." The AMA will subsidize 20 of these this year. On motion, duly seconded, permission was granted to proceed with planning such a workshop.

Mr. Cooper called the Council's attention to a letter from Dr. Sammons regarding our AMA membership to date. At the present time, we have 3,070 dues-paying AMA members. It was pointed out that many physicians are not members of the AMA.—**Referred to the Reference Committee on Reports of Officers.**

■ A seminar is being sponsored by the Missouri Health Data Corporation conjointly with the Missouri Hospital Association for hospital personnel. This will be held in Columbia on September 28. Copies of the announcement were distributed along with registration blanks.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

■ We received a letter of thanks from the Dr. Tom Dooley Statue Committee for the donation the Council authorized at the previous Council Meeting.

The Interim Session of MSMA will be held November 2-3 at the Howard Johnson Motel in Springfield. We presently have seven resolutions for the Handbook. Deadline for submission of resolutions is Oct. 3, 1977.

The MSMA is sponsoring its annual meeting of Component Medical Societies on September 30-October 1 at the Osage House, Lake of the Ozarks. A meeting of the Commission on Public Affairs will be held in conjunction with this meeting. The Councilors were asked to encourage members in their counties to participate in the meeting of the Component Medical Societies.

Mr. Cooper reported that Dr. Hugh Ritter had called the MSMA office indicating that he was sorry he could not attend the Council meeting because the AMA Board of Trustees was meeting at the same time. Dr. Ritter reported that the Council on Medical Services will name an ad hoc committee to study PL 93-641. He thought that the Council might wish to recommend someone to this ad hoc committee.

On motion, duly seconded, the Council suggested that Dr. James Sisk be recommended as an appointment to this ad hoc committee.

Dr. Ritter further indicated to Mr. Cooper that Dr. Sisk will be appointed to a Reference Committee at the Interim Session. However, at this time, he was not sure just which committee.

### TREASURER'S REPORT

Dr. Stokes gave a brief report on the financial status of the Association, indicating that staff had outlined the budget to him and it seemed to be in good order. A report was distributed indicating the receipts, disbursements, investment account, etc. and expenses through August 31. On motion, duly seconded, the Council approved the Treasurer's Report.

### EXECUTIVE SESSION

Chairman McCanse reported that in the Executive Session on the previous evening, the Council voted to give a $500 grant to the American Association of Medical Society Executives educational fund.

Also, the Council voted to endorse statewide efforts to enforce the school immunization law.—**Referred to the Reference Committee on Reports of Officers.**

■ Dr. McCanse then introduced and extended a welcome to Dr. James Whittico, Chairman, State Board of Registration for the Healing Arts, and Gary Clark, Executive Secretary of the Board.

### BOARD OF HEALING ARTS

Dr. Whittico thanked the Council for the opportunity to be present at the meeting and, in particular, Dr. Martin who has served on the Board for several years. Dr. Whittico reiterated that the Board and the MSMA, along with others, must work together to try to combat the many problems facing organized medicine today. He commended the MSMA for its part in establishing an ad hoc committee composed of representatives of the MSMA, MAOPS and the Board of Healing Arts to study mutual problems and encourage the organizations to work in close harmony. Dr. Whittico stated that the Board of Healing Arts would like to consider itself part of the collective effort of organized

MSMA vice-presidents elected for 1978-1979 are *(left to right)* Dr. H. B. Ivy, Springfield; Dr. Donald A. Fakhoury, Kansas City; and Dr. Joseph V. Finnegan, St. Louis.

medicine in the state to assist in solving many of the problems facing medicine today.—Referred to the Reference Committee on Miscellaneous Affairs.

### PRESIDENT'S REPORT

■ Dr. McAlhany reported that he and Mr. Cooper had attended a meeting of the presidents and executives of MSMA, MAOPS and the Missouri Hospital Association regarding problems of mutual concern such as health care costs, Medicaid, public education, governmental intervention and legislation for 1978. Another meeting is being planned in which they hope to come up with specific recommendations.—Referred to the Reference Committee on Reports of Officers.

■ Dr. McAlhany called the Council's attention to the recent articles concerning possible Medicaid fraud. A letter was written to Mr. Walsh of Family Services and a news release submitted regarding our objections to these accusations. A reply received from Mr. Walsh indicates that they will continue to investigate and prosecute where fraud is indicated. Dr. McAlhany indicated that we must monitor this very closely.—Referred to the Reference Committee on Resolutions.

■ Dr. McAlhany reported that the Planning Committee recently held a meeting regarding reapportionment. He requested that the following statement be included in the MSMA Bylaws, "The MSMA may serve as the bargaining agent for its members and enter into negotiations on their behalf." If this is approved by the Council and the House, then it will be added to the state charter.

Dr. McAlhany reported that the Planning Committee approved his "Action Plan" concerning the three following areas:

1. *Socioeconomic Problems*—Attempt to resolve differences between physicians and third parties, including government, relative to payment of benefits, fees and condition of services.

2. *Political Issues*—We must become involved in ongoing political programs. If we expect to improve our political muscle, then we must strengthen ourselves at this level. He said that the key man concept is a good one, but is not effective on the state level. We must interview each candidate, present our views and maintain a continuous dialogue at the local level.

3. *Medical Problems*—Study medical problems involving physicians and hospitals; physician-patient relationship. Are we participating adequately in health planning, cost containment programs, etc.?

Dr. McAlhany indicated that his "Action Plan" would require more expenditure of funds and anticipated the cost would be approximately $50,000. At the present time, Missouri's membership dues are the lowest in the nation and he recommended a dues increase of $25 per year.

On motion, duly seconded, the Council approved the Bylaws change regarding negotiations, Dr. McAlhany's "Action Plan" and the $25 increase of MSMA dues.

### COMMITTEE ON PLANNING

In the absence of the Chairman, Dr. Rother, Dr. Richard Bradley reported on the meeting of the Planning Committee held on August 11 in Columbia. Dr. McAlhany explained his "Action Plan" to the Committee and the Committee recommended that the Council adopt the plan. The Committee expressed the hope that the plan can be implemented within the present committee structure of the MSMA.

The Planning Committee next considered the Council-passed resolution dealing with redistricting of the MSMA. It was the consensus of the Committee that the pressing problem to be addressed at this time is reapportionment of the MSMA House of Delegates. The Committee recommended that there be no changes made in Councilor Districts at this time.

Regarding reapportionment of the House of Delegates, the Committee believes that the metropolitan areas of the state are currently under-represented and offers the following recommendations to the Council to be incorporated into the MSMA Constitution and Bylaws:

1. Eliminate Delegate representation from a Missouri county where no MSMA member is in practice.

2. Eliminate Delegate representation for a county with only one member, if that county is represented as a part of a hyphenated medical society.

3. Continue the general tradition of election of delegates to the House of Delegates with a change in the formula and clarification of hyphenated societies representation. The Committee recommends the following formula offered by Dr. Rule Olson to substitute for language in Chapter III, Section 2 of the Bylaws: (Changes are in italics.)

> "*Resolved* that Chapter III, Section 2 of the Bylaws of the Missouri State Medical Association be amended to read as follows:
>
> "Section 2. Each component medical society shall be entitled to send each year, one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31, of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided, however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties *having two or more member physicians practicing in the county, of which the component society is composed; however, such delegates must practice in the county they represent.* Alternate delegates may be elected from the entire membership of the component medical societies."

Changing the formula as recommended above will increase the overall number of Delegates to the House and, at the same time, increase the proportionate membership of the larger medical societies. The Planning Committee felt it is preferable to add Delegates from the larger societies rather than subtract Delegates from the smaller societies.

The Planning Committee used this opportunity to review the entire Constitution and Bylaws of the MSMA and would recommend changes which would result in the following objectives:

1. Any time the phrase "county medical society" is used in the Constitution and Bylaws, the word "county" should be changed to "component."

2. Add provisions to *Article XI* of the Constitution so that the Constitution could be amended at the Interim Session. We would recommend that a change in the Constitution still be required to lay on the table for one year.

3. In *Chapter IV, Section 1* in the Bylaws, reword the section so that it does not conflict with the Constitution. This section reads that the House shall elect the Secretary and Treasurer while the Constitution states that the Council shall elect these officers.

4. Clarify the language in *Chapter IV, Section 2* of the Bylaws to eliminate confusion when Delegates positions are challenged.

5. In *Chapter V, Section 2* of the Bylaws, clarify the status of the President-Elect by stating when he assumes office.

6. Change *Chapter V, Section 3* of the Bylaws so that the President would name a First Vice-President from the three vice-presidents. This First Vice-President would serve the unexpired term of an incapacitated President.

7. Change *Chapter V, Section 4* of the Bylaws so that rather than the Treasurer, President and Secretary all having to sign checks, "any two-of-the-three" could sign. Also, we would recommend increasing the bond to $50,000.

8. In *Chapter V, Section 5* of the Bylaws, delete the words "card index" when referring to the register of physicians the MSMA is required to maintain.

9. Change *Chapter VI, Section 1* in the Bylaws so that the Council would be required to meet at both the Annual and Interim Sessions of the House.

10. *Chapter VI, Section 8* reconsider the duties of the Committee on Arrangements for the Annual Session to reflect that these duties are a staff function and the Committee on Arrangements should be advisory in nature to serve as host for the Session.

11. *Chapter VIII, Section 4* should be reworded so that when a component medical society agrees, the MSMA can collect dues directly from members.

12. In *Chapter XI, Section 3 (paragraph 5)*, we recommend that the waiving of dues for members of the Armed Services be discontinued.

13. Review *Chapter XI, Section 6 (paragraph 2)* to see if the section agrees with other sections dealing with forfeiting membership in the Association.

14. In *Chapter XI, Section 9*, either drop or enforce the sentence dealing with sending a copy of a component's program to the Councilor and Secretary.

15. *Chapter XII, Section 1* should be changed so that the Bylaws can be amended at the Interim Session.

Following the report, the Council discussed it and made several modifications. The Council recommended a change in the language of *Chapter III, Section 2*. Section 2 would read as follows:

> "Section 2. Each component medical society shall be entitled to send each year, one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31, of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided, however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties *having a physician practicing or residing in the county of which the component society is composed.* Alternate delegates may be elected from the entire membership of the component medical societies."

Due to the recommended change in *Chapter III, Section 2* above, the Council recommended that items #1 and #2 in the first report of the Committee on Planning in these minutes be deleted.

On motion, duly seconded, the report of the Planning Committee was approved by the Council with the above stated modifications. It was further moved that Dr. Rother and his Committee on Planning be commended for a job well done.

### MSMI PROFESSIONAL LIABILITY INSURANCE PROPOSAL

Dr. Clark reported to the Council that at the time the MSMI was initiated, it was recognized that it was not the ultimate answer to the liability insurance dilemma. The Council authorized Rollins Burdick Hunter to pursue the study of a physician-owned captive insurance company. At this point, Dr. Clark introduced Jim Hamilton, Tim Danis and Morris Stokes. Mr. Hamilton presented the Council with "A Proposal for an MSMA Captive Insurance Company." This consisted of areas and issues of primary consideration, together with the general recommendations and the method or manner of implementing them. A summarization of this proposal will appear in the Delegate's Handbook for the Interim Session to be held on November 2-3.

Following brief discussion regarding the above proposal, it was moved and seconded that the Council approve the "Proposal for an MSMA Captive Insurance Company" to be presented to the MSMA House of Delegates at its November meeting. The motion carried.—Referred to the Reference Committee on Constitution and Bylaws.

### COMMISSION ON INTERSPECIALTY MEDICINE

■ Dr. Thomas J. Cooper, Chairman, gave a brief report of

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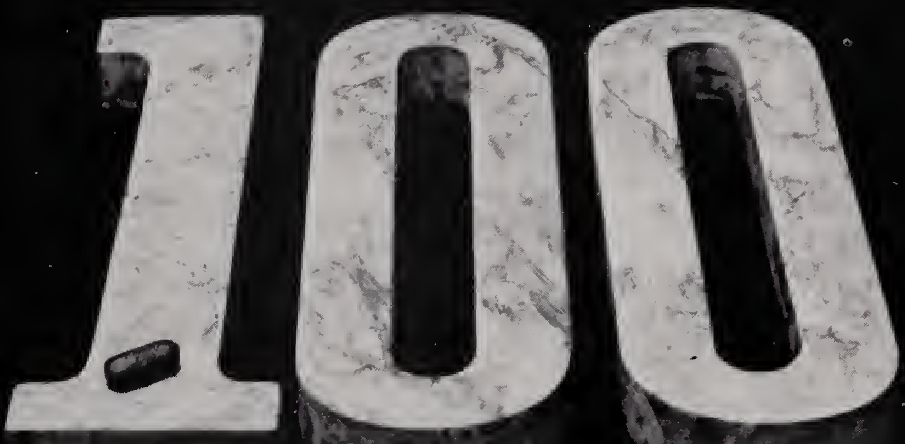

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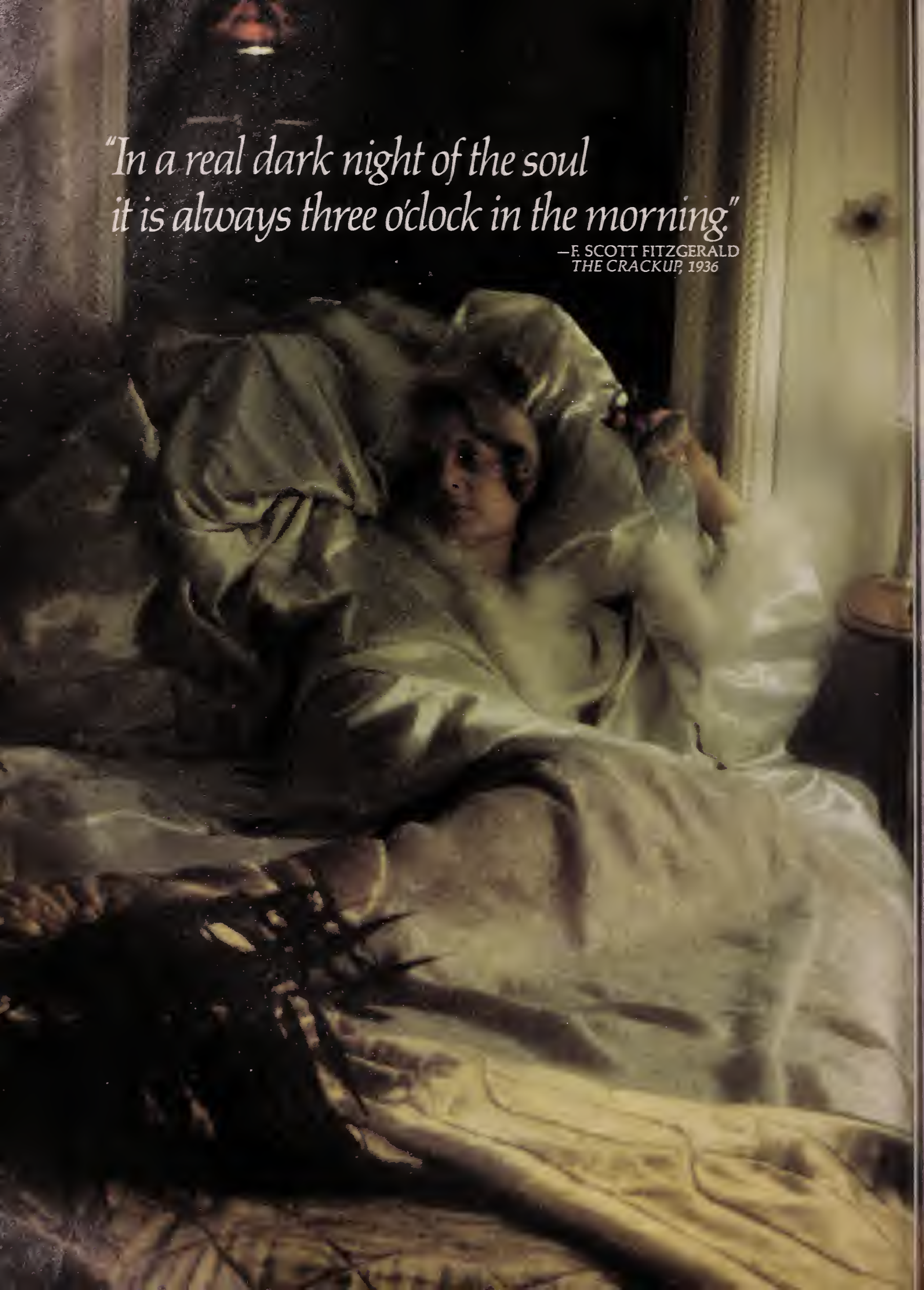

*"In a real dark night of the soul*
*it is always three o'clock in the morning."*

—F. SCOTT FITZGERALD
*THE CRACKUP, 1936*

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# a shade of blue that often accompanies depression

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[1] Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

**Brief Summary of Prescribing Information**
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**Contraindications**—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

**Warnings**—Adapin has not been evaluated for safety in pregnancy. No evidence of harm to the animal fetus has been shown in reproductive studies. There are no data concerning secretion in human milk, nor on effect in nursing infants.

Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

In patients who may use alcohol excessively potentiation may increase the danger inherent in any suicide attempt or overdosage.

**Precautions**—Drowsiness may occur and patients should be cautioned against driving a motor vehicle or operating hazardous machinery. Since suicide is an inherent risk in depressed patients they should be closely supervised while receiving treatment. Although Adapin has shown effective tranquilizing activity, the possibility of activating or unmasking latent psychotic symptoms should be kept in mind.

**Adverse Reactions**—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

Adverse effects occurring infrequently include extrapyramidal symptoms, gastrointestinal reactions, secretory effects such as sweating, tachycardia and hypotension. Weakness, dizziness, fatigue, weight gain, edema, paresthesias, flushing, chills, tinnitus, photophobia, decreased libido, rash and pruritus may also occur.

**Dosage and Administration**—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

Antianxiety effect usually precedes the antidepressant effect by two or three weeks.

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Pennwalt Corporation
Rochester, New York 14603

# The AMA Computer Systems in Medicine Consultative Services Program

The American Medical Association recognizes the potential that computers have in the health care setting. Therefore, the AMA has initiated the **Computer Systems in Medicine Consultative Services Program.** Through this program, physicians who are considering computer services as well as current users who want to improve or expand their computer applications can obtain an objective viewpoint and expertise in methods and equipment.

Computers have the potential to be a tremendous asset to the medical community, and have possible application in some or all of the following:

- Improving patient care
- Creating more accessible medical records
- Improving financial management and control
- Reducing the rate of increasing costs
- Improving facility and personnel utilization

The **Consultative Services Program** has established expertise extending from general decision-making on the utilization of computers in medicine to detailed systems design, programming and implementation of systems. The Program's activities include: needs analysis; alternatives development; specifications development; proposal evaluation; and systems audits.

While the major thrust of the **Consultative Services Program** will result from interest in the use of computers or computer-related services, the primary goal of the consultant is to recommend the most advantageous treatment of each situation. **The focus is the needs and objectives of the client,** not the promotion of computerized solutions.

For a more detailed description of this new and valuable service or to arrange a consultative visit, contact: John A. Guerrieri, Jr., Program Director, Consultative Services Program, at (312) 751-6417.

the meeting held by the Commission on Interspecialty Medicine on August 20. The Commission had the general feeling that it is not being heard at the Council level. A motion was made, seconded and carried that the Commission Chairman attend Council meetings on a regular basis.

Dr. Cooper indicated that he encouraged the Commission members to take an active role in the Interim Session.

Dr. Bradley spoke on several issues to the Interspecialty Commission regarding HEW-FTC and Fee Schedules, PSRO and HSA Medicaid comparisons, etc. to point out what the government is doing to the medical profession in general.

A discussion was held regarding the American Hospital Association's encroachment on medical practice. This is apparent by the recent push for revision of hospital bylaws and the increased role of ancillary personnel. The Commission moved, seconded and approved that each specialty representative forward to the Chairman of this Commission a list of ancillary personnel that can be found in our health system and staff was asked to compile and distribute this list to each member of the Commission. The thrust of this motion was to identify and stay abreast of all new medical ancillary personnel entering the health field.

Considerable discussion was held concerning physician's assistant programs and their status in Missouri. An article was included with the agenda indicating that Lindenwood College is offering a new five-year program to train medical technicians that will open this fall. It was felt by those present that a representative from the college should be asked to attend the next meeting of the Commission to discuss the training and functions of graduates.

On motion, duly seconded, the Council approved the report of the Commission on Interspecialty Medicine.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### REPORT OF WOMAN'S AUXILIARY

■ Mrs. Pat Stelmach, President of the MSMA Woman's Auxiliary, gave a brief report on Auxiliary activities during the summer months. She and Mrs. Campbell have attended various county society meetings over the state. She reported on the CPR Program that the Cape Girardeau County Auxiliary is carrying out and indicated that Mrs. Talbert will assist anyone wishing to set up such a program.

A pamphlet for new mothers has been devised to be distributed through hospitals by the Auxiliary.

Mrs. Stelmach asked the Councilors to encourage their medical societies to invite the President and President-Elect of their local Auxiliary to their county society meetings. This would be a definite aid to the Auxiliary in keeping abreast of various medical problems, etc.

Mrs. Stelmach thanked the staff for their assistance, particularly Jean Duensing, who was recently named to assist the Auxiliary in its various activities.

On motion, duly seconded, the Council approved the report of the Woman's Auxiliary.—**Referred to the Reference Committee on Reports of Officers.**

### REPORT ON CONTINUING MEDICAL EDUCATION AND 120TH ANNUAL SESSION

■ Dr. Ladyman gave a brief report on CME, indicating that 65% to 70% of the membership of the MSMA now have direct access to CME activities. He indicated that they had recently accredited two more organizations and wished to receive Council approval for them. They are (1) Missouri Chapter, American College of Surgeons—accreditation for one year; and (2) Deaconess Hospital, St. Louis, accreditation for two years. On motion, duly seconded, the Council approved of these two accreditations.

Dr. Ladyman indicated that the manila folder presently being used in recording CME activities will be replaced by an individual, self-addressed card.

Regarding the 120th Annual Session, Dr. Ladyman reported that to simplify the recording process of the scientific sessions attended, future programs will provide the amount of credit that may be claimed per Scientific Session.

Dr. German suggested that it might be interesting to have a discussion at the Annual Meeting covering such things as PSRO, HSA, etc. open to all individuals. Dr. Ladyman indicated that the Ad Hoc Committee on the 120th Annual Session had suggested several topics for the opening General Session—Medical Ethics, Consumerism and CME. A specific topic will be selected in the near future.

On motion, duly seconded, the Council approved the reports of the Ad Hoc Committee on the 120th Annual Session and on Continuing Medical Education.

### MISSOURI HEALTH DATA CORPORATION

Dr. Francis Maple, President of the Missouri Health Data Corporation, sent a written report to the Council regarding the Corporation. They had three major projects they wished to accomplish this year.

The first was to obtain the 1976 data from the hospitals on the PAS system. This project is drawing to a close and should be wrapped up by October 15.

The second activity was to begin data collection for the PSROs in Missouri. This activity is progressing according to schedule. Data collection began in July for three PSROs. The abstracts for Medicare or Medicaid patients are submitted to MHDC in Jefferson City either via the PSRO or directly from the hospital, depending upon the PSRO area. The data is entered via terminals of MHDC directly into a computer in Albuquerque, N. M. The data is edited for accuracy as it is entered, with any documents with errors being returned to the PSRO for correction by the hospital.

A fourth PSRO will be added as soon as HEW approves their data processing contract and the final PSRO is scheduled to be phased in later in the year.

The third project was to offer a medical information service to hospitals to replace the many separate data collections on multiple forms. A great many meetings and much work has been involved in developing a single set of data elements to satisfy the needs of hospitals, PSROs, HSAs, etc. and to design a single sheet abstract to collect such multi-use data.

The data elements have been agreed to by all parties and the abstract was approved at the MHDC board meeting on July 27, 1977. With these important tasks behind them, they should be in a position to offer their medical abstract system to the hospitals. They anticipate replacing the state hospital abstract system as well as enrolling other hospitals.

By the use of the MHDC system, hospitals will need to furnish information only once. This will be less costly, more accurate, more reliable and less subject to misinterpretation.

They are pleased with their progress as they work toward achieving the goal set for them to become the non-profit, non-governmental central data collection agency for Missouri. The achievements so far and any future development of MHDC rely heavily on the Missouri State Medical Association representation on its Board.

On motion, duly seconded, the report as written by Dr. Maple and distributed to the Council was approved.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### COMMISSION ON MEDICAL ECONOMICS

■ In the absence of Dr. Max Heeb, Chairman of the Commission on Medical Economics, Third Party Medicine and

Governmental Relations, Dr. Torontow presented the report of the Commission to the Council.

*MSMA Resolution #13*—The Commission discussed the actions in the recent legislative session which led to a $4 million increase over the recommendation of the Governor. It was observed that the more active physicians become in communicating the needs of the Medicaid program, the more successful will be the results of their efforts. A resolution will be submitted to the Commission for action prior to the Interim Session deadline for resolutions regarding MSMA actions in the appropriation process next Session in the General Assembly.

*Recommendation*—That the Council encourage Dr. Howard McAlhany, President, to write each of the members of the appropriations committee to thank them for their efforts on behalf of the Medicaid program, to let them know that this can only be a first step toward saving the program and to assure them that MSMA encourages participation in the program.

*MSMA Resolution #18*—The Commission discussed some of the implications of withdrawing from participation in PSRO. It was agreed that much more information is necessary to assist the Council with this resolution.

The Commission requested Staff to conduct research to discover how PSRO is working in Missouri, specifically:

1. Number of delegated and nondelegated hospitals.
2. Hospital visits to observe function.
3. How it is operated.
4. For what are physicians paid.
5. How much are physicians paid in hourly rate and how much is the PSRO paying per month for physicians' services.
6. What does it cost to review a hospital under PSRO:
   a. Per bed cost.
   b. Per recipient of Medicare/Medicaid.
7. a. Has the length of stay been altered because of PSRO review.
   b. Has the number of hospital bed days been altered.
   c. Has the number of admissions decreased.
8. What steps are taken to protect the confidentiality of PSRO data.
9. What data is considered confidential.

The Commission will report to the Council on PSRO prior to the next Annual Session.

*MSMA Resolution #21*—The Commission discussed recent developments on the AMA level with respect to physician involvement in negotiation and collective bargaining. The Commission notes that close cooperation and coordination with the only existing physician organization of negotiating capacity continues.

*Recommendation*—The members encourage the Council to explore the possibility of amending the charter or reorganize so that MSMA may serve its membership by negotiation on their behalf.

The Commission recommends that given the present political situation in the AMA, that the best way to encourage AMA is by example.

*Third Party Relations*—The Commission thoroughly discussed the questions raised in the Fourth District concerning arbitrary withdrawal of payment for certain professional procedures by third parties. The Commission noted that it is difficult for a medical organization to defend obsolete procedures.

The Commission advised the Council that it is appropriate for third-party payers to define what services it will provide so long as the policy holder is informed of what is covered in his policy.

*Mandatory second opinions*—The Commission discussed several news releases regarding mandatory second opinions. The members expressed approval of the AMA policy embodied in Resolution #77 of the June, 1977 AMA Convention, but would add the admonition, "Often a second opinion is not as valid as the first."

The Commission agreed to reexamine the issue after the Health Insurance Association of America releases its study of second opinion coverage.

*Generic Drugs*—The members discussed the effects of the recent amendment to the Medicaid formulary which removed some brand name drugs to be replaced by generics. Several members reported that they have received letters from pharmacies requesting the physician to sign to authorize substitution.

*Recommendation*—

1. The physicians of Missouri will continue to prescribe the most efficacious drug for each patient's needs
2. The Commission regrets that the Division of Family Services chooses not to pay for certain proven drugs
3. The Council should pursue all administrative remedies to alter the effect of the rule

*Laboratory Services*—The Commission examined the ruling of HEW that a physician is not entitled to payment for any laboratory services not performed by him. The members are concerned that the ruling may unduly burden certain individual practitioners since Missouri does not pay a drawing or handling fee for the physician who uses the laboratory service.

The Commission is drafting a resolution to submit at the Interim Session to authorize MSMA to sponsor legislation that would allow Medicaid to pay a drawing or handling fee.

*Single Fee for Medicaid Service*—The Commission recalled that it is MSMA policy to support the single fee for single service concept in Medicaid payments. The Commission feels that with fees for physician services becoming a line item in the Medicaid budget, the timing may be appropriate for this additional modification.

*Recommendation*—The Commission asks the Council for its guidance and recommendation.

*HMO*—The Commission mentioned an article in the Aug. 11, 1977 issue of *Kansas City Times* which described how economically HMOs have operated and failed to mention the public funds which are necessary for them to pay their way.

*Recommendation*—The Commission recommends that the Council respond in an appropriate manner.

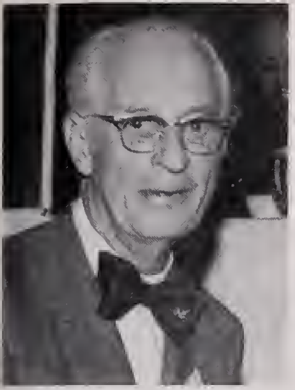
Following this presentation, the Council discussed the report. Regarding the Single Fee for Medicaid Service, it was agreed that the President of the Association would write a letter to the Division of Family Services, with a copy to the Department of Social Services, pointing out our support for the single fee for single service concept in Medicaid Payments and that the Commission on Medical Economics should proceed with negotiations on that subject.

Regarding the article appearing in the *Kansas City Times* concerning HMOs, it was moved, seconded and passed that President McAlhany would send a letter to the *Times.*—**Referred to the Reference Committee on Resolutions.**

### COUNCILOR DISTRICT REPORTS

■ *District #1*—Dr. Hedges indicated that his district had endorsed the program of the UMKC Medical School placing medical students in physician offices for a short period of time.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

■ The Northwest Missouri PSRO is active at the present time. Approximately 66% of hospital beds have now received delegated status. Seventeen physicians are presently on the PSRO Board.—**Referred to the Reference Committee on Resolutions.**


Guy N. Magness, M.D.
University City

Dorothy Ellersieck, M.D.
St. Louis

Hugo F. Bergman, M.D.
St. Louis

Hobart K. Allebach, M.D.
Kansas City

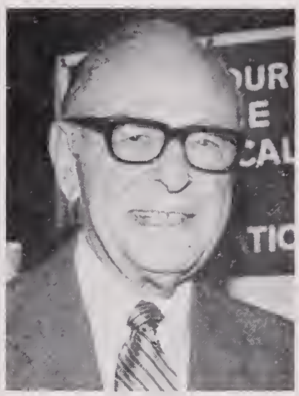
# MSMA Members Receive 50-Year Pins

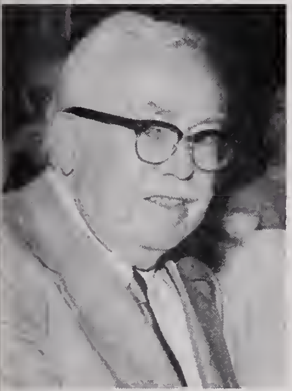
*Members of the Missouri State Medical Association who have completed 50 years in the practice of medicine are honored at the President's Banquet each year.*

*Twelve members who attained this distinguished accomplishment in 1978 and who attended the banquet in Kansas City are pictured as they received their 50-year pins and congratulations from President Howard J. McAlhany.*

*Members who received 50-year pins but did not attend the banquet are Edward Bowdern, Richmond Heights; Carl Poor, Neosho; Marvin Gentry, Ava; Alma Reese, Webster Groves; Julius Elson, Florissant; Frederick Jacobs, Sun City, Ariz.; Ronald Elkins and Elmer Rainwater, Springfield; Axel Arneson, Henry Hampton, Howard Hildreth, Charles Montani, George A. Seib, David Skilling, Samuel D. Soule and Claude Zwart, St. Louis; and Enoch Gentry, Florence MacInnis and Mark Marks, Kansas City.*

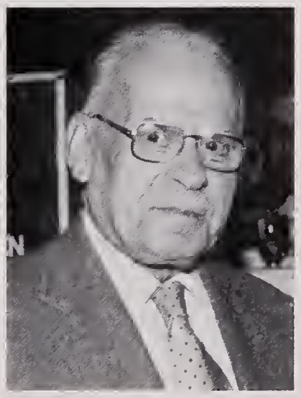
J. Ted Jean, M.D.
St. Louis


Jerome I. Simon, M.D.
St. Louis


Robert M. Bell, M.D.
Hannibal

Ray S. Hollingsworth, M.D.
Clinton

George H. Wood, M.D.
Carthage


Carroll Hungate, M.D.
Kansas City

Albert H. Muench, M.D.
St. Joseph

Arthur L. Hanson, M.D.
Butler

■ Clay County Medical Association is co-sponsoring a workshop on "Public Relations for Medical Personnel" on October 11-12, in Liberty.

Dr. Hedges reported that a one-day program on Child Abuse is being held on September 12 at the Tri-County Mental Health Center located at the North Kansas City Hospital.—Referred to the Reference Committee on Miscellaneous Affairs.

■ *District #2*—Dr. Walterscheid had no report at this time.

*District #3*—Dr. Bradley reported that in keeping with Dr. German's suggestion regarding programs on HSAs, there will be a meeting on September 28 at the St. Louis Medical Society Auditorium and a panel of experts will present a program on HSAs.

*District #4*—Dr. Hetlage reported that the following items were discussed at the recent meeting of the Fourth District officers and delegates. Reports of the Commission on Medical Economics and Committee on Planning were reviewed. Another item discussed was the continuing rise in cost of medical care.

Dr. Hetlage indicated his support of Dr. McAlhany's response to the Division of Family Services regarding the recent articles on possible Medicaid fraud in the State.

A discussion was held at the Councilor District meeting regarding the problems mutual to pharmacy and medicine, particularly the matter of cost control and the frequent substitution of generic drugs for brand name drugs. It is generally felt that increased communication between the professions would be of value. Therefore, the following resolution is proposed:

> Whereas, Problems have arisen between the medical profession, pharmacists and the Division of Welfare concerning substitution of brand vs generic drugs and unlimited refill policies, and
>
> Whereas, The implication of computerized record keeping has not been fully explained, and
>
> Whereas, Proper liaison between the MSMA and the pharmaceutical association could lead to a significant reduction in the overall cost of medical care, therefore, be it
>
> *Resolved,* That a liaison committee of the MSMA be formed to meet with the Missouri Pharmaceutical Association for the purpose of increasing communication and cooperation between the two professions, and a more unified stand on policy in regard to matters concerning the Division of Welfare.

It was moved, seconded and carried that the above resolution be accepted by the Council.

Dr. Hetlage indicated his full support for the "Action Plan" proposed by Dr. McAlhany.

*District #5*—Dr. Ekern reported that the PSRO in his district is active and seems to be functioning well. He reported that an HSA public hearing would be held in Mexico on September 12.—Referred to the Reference Committee on Resolutions.

■ Dr. Ekern reported that the Missouri Academy of Family Physicians is adopting the MSMA key man concept and will try to use this to become more effective in the political arena.

The 5th District is planning a Legislative Dinner with Delegates and Legislators in early December.—Referred to the Reference Committee on Miscellaneous Affairs.

■ *District #6*—Dr. Torontow did not have a report at this time.

*District #7*—Dr. McCanse reported that on October 13-14, the AMA and the Jackson County Medical Society will sponsor a session on patient relationships for physicians' office personnel.

Several members of the Jackson County Medical Society participated on a Teenage Pregnancy Task Force and came up with some concrete proposals. This received a good deal of favorable publicity.

Jackson County Medical Society office now handles the administrative duties of the Eye Bank. They now perform administrative duties for nine organizations.

The TEL-MED program, a telephone service for lay people administered by the Jackson County office, is now receiving 7,000 calls per month and the three main topics of inquiry are: (1) Masturbation, (2) Vasectomy and (3) Am I Really Pregnant?

*District #8*—Dr. German reported that the "Singing Doctors" had produced another record and it appears that this record will be their largest selling one to date. The funds produced from the sales of records have provided scholarships for medical students.

Dr. German indicated that an Arthritis Symposium will be held in October.

*District #9*—Dr. Cooper reported that the coordinator for family practice at the University of Missouri—Columbia had recently presented a one-day seminar for physicians in his area. The physicians received 5½ hours of CME credit and another seminar is planned for December.—Referred to the Reference Committee on Medical Education and Public Welfare.

■ *District #10*—In the absence of Dr. Hansbrough, Dr. Ladyman, Vice-Councilor, reported that the HSA in his area is having some problems. There is very little physician representation.

Dr. Ladyman stated that the PSRO in District #10 is going very well. Twenty-one out of twenty-three hospitals have been delegated and there are 21 physicians on the 23-man Board.—Referred to the Reference Committee on Resolutions.

### AMA REPORT

■ Dr. Froelich reported that actions of the House of Delegates at the June meeting of the AMA had been published in the *AMA News*. Dr. Froelich indicated that the AMA House had been informed that the AMA is in much better financial shape than it was one year ago.

Dr. Froelich reported that quite a bit of time was spent on National Health Insurance. It was agreed that the name of the AMA's insurance proposal be changed to Comprehensive Health Insurance rather than be called a National Health Insurance proposal.

Dr. Froelich reported on Missouri's resolution on a physician serving on the AMA Department of Negotiations. There was confusion regarding this resolution since the AMA staff assumed that we wanted a full-time salaried physician on the staff of this Department. The resolution was amended to read that a physician may be added to the staff of this department.

Missouri's resolution on the health education assistance act was referred back to the Board for preparation of amendments. Our resolution on the ban of saccharin had been combined with a similar resolution from New Jersey and was adopted.

Dr. Froelich stated that he felt Missouri's delegation had functioned very well during the recent AMA Session.—Referred to the Reference Committee on Resolutions.

### COMMITTEE ON ARRANGEMENTS FOR 1978 AMA ANNUAL SESSION

■ Chairman McCanse appointed the following to serve on a Committee on Arrangements for the 1978 AMA Annual

Session: Drs. Martin, Chairman; Bradley; Balster; Lieb and McCanse.

Dr. McCanse then appointed a Committee on Arrangements for the upcoming 120th MSMA Annual Session—Drs. Hedges and Torontow and Dr. McCanse will serve as Chairman.

### FUTURE COUNCIL MEETING DATES

The next meeting of the Council will be held at 9:30 AM on November 2 at the Howard Johnson Motor Lodge, Springfield.

The December Council Meeting will be held on December 16-17 at the Hilton Inn in Columbia. Budget Meeting at 1:00 on Friday, December 16; Executive Session at 5:00 on Friday; and full Council Meeting following day.—**Referred to the Reference Committee on Reports of Officers.**

### REPORT OF DEANS

■ Dr. William Allen expressed Dr. Lobeck's regrets for not being able to attend the Council meeting and reported on several new department chairmen. Dr. Robert Jackson of the University is retiring after many years and will be honored at a banquet on September 29.

Dr. Allen reported to the Council members that they may get some questions in their areas regarding the medical school examination for those applying for entrance. This is a seven-hour, six-part examination including biology, chemistry, physics, reading, reading comprehension and problem solving. There were 535 candidates for admission to medical school this fall.

Dr. Noback reported that the UMKC continues to grow both in faculty and student numbers. A new Chancellor, George Russell, has been appointed effective October 1.

Dr. Noback thanked the Councilors for their role in making it possible for UMKC students to participate in and work with physicians in their areas. This was done successfully in District #6 and now will be tried in District #1.

Dr. Thoma indicated that St. Louis University is instituting a new student loan program whereby the University makes loans from local banks and in turn makes reloans to the medical students. The University is asking the alumni to pledge their proportionate share in any default of these loans.

Dr. Thoma discussed the Health Manpower Bill and indicated that the Board of Trustees upheld the position of the Medical School Dean that they not accept capitation grants. Application for the grant has been made, however, if the present law is not amended, they will not accept the money.

St. Louis University was recently designated as the Bi-State Regional Trauma Center for Southern Illinois and Eastern Missouri.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### LEGISLATIVE REPORT

■ Dr. Matthews gave the following Legislative Report. The following resolutions from the Annual Session were discussed and indicated action taken.

*Resolution #4*—"Coverage of Chemotherapeutic Costs." Bill is to be drafted and a sponsor obtained.

*Resolution #12*—"Optometric Legislative Activity." The intent of this resolution was carried forth during the last session of the Legislature.

*Substitute Resolution for Resolutions #13, #14 and #20* regarding the Medicaid Program. No legislation called for at the present time.

*Resolution #23*—"Psychiatric Representation on State Mental Health Commission." Bill will be drafted and sponsor obtained.

*Resolution #25*—"Repeal of Delaney Amendment." Legislative Committee will study all implications of this resolution and report back to Council at future date.

*Resolutions #6 and #15*—"Physicians' Assistants." The recommendations by the House at its last meeting suggested that the legislative efforts in this area be watched but not supported.

*SIDS*—It is the understanding of the Legislative Committee that a resolution on this topic will be introduced at the Interim Session of MSMA giving the Association more firm directions on how to proceed.

*State Funding for Primary Care Residencies*—Last session, a bill for support of family practice residencies was introduced. However, other primary care specialties felt they should be included in a bill of this type. It is anticipated that we will introduce a bill this session similar to the Oklahoma Physician Manpower Training Program bill which would cover all primary care specialties.

Three malpractice bills will be reintroduced at the coming session, namely—expert witness, collateral sources and structured awards.

Dr. Matthews stated that the 1122 program is the SSA proviso for review of capital expenditures. It was the opinion of the Committee that we should go on record as favoring the reimplementation of the 1122 program until the certificate of need legislation is passed by the Legislature.

On motion, duly seconded, the Report of the Legislative Committee was approved.

The meeting adjourned.—**Referred to the Reference Committee on Miscellaneous Affairs.**

## Meeting of Nov. 2, 1977
## Howard Johnson's, Springfield

■ Andrew McCanse, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. McCanse; Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes, St. Louis; Max S. Franklin, St. Louis; Stanley S. Peterson, Springfield; Richard C. Hedges, N. Kansas City; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; Roy W. Pearse, Nevada; Walter German, Springfield; Claude W. Cooper, Thayer; Eugene T. Hansbrough, Poplar Bluff; Gary Dyer, St. Joseph; Richard Fallon, St. Louis; Frederick Peterson, St. Louis County; Mary McCaffree, Jefferson City; R. John Torontow, Nevada; I. H. Clark, Kansas City; Marvin Singleton, Joplin; Jack Wiles, West Plains; George Ladyman, Poplar Bluff; Edwin K. Burford, Cape Girardeau; Lily Ann Hanes, St. Louis; Hubert A. Ritter, St. Louis; James Sisk, St. Louis; Lawrence W. O'Neal, St. Louis; Robert A. Slickman, Kansas City; Rae W. Froelich, Lebanon; George Hawkins, St. Louis; H. B. Ivy, Springfield; Clement B. Grebel, St. Louis; William C. Allen, Columbia; Thomas J. Cooper, St. Louis; Messrs. Edward Hirsch, St. Joseph; James E. Thompson, Springfield; Royal O. Cooper, C. C. Swarens, Ron Ellison, Don Wilson, John Kuebler and Becky Hankins, Staff.

Chairman McCanse opened the meeting by calling for approval of the Minutes of the September 10 Council Meeting. On motion, duly seconded, the minutes were approved as distributed.

Dr. McCanse introduced the newest member of the MSMA Staff, Becky Hankins, who was recently hired as Director of Communications.

### PRESIDENT'S REMARKS

Dr. McAlhany indicated that he did not have any particular remarks concerning the upcoming Interim Session. However, he did state that he felt a membership recruitment drive could be beneficial to both the MSMA and the AMA.

Mr. Cooper stated that there are a large number of physicians in the state of Missouri who do not belong to the county or state associations and these names are available to us. He proposed that a membership kit be developed which would contain materials describing the activities and benefits of both the MSMA and the AMA. The larger component societies might wish to add information regarding their local society. This kit would contain a membership application. The local component societies would distribute these kits. On motion, duly seconded, the Council approved the formation of a membership recruitment program.

### SPEAKER'S REMARKS

Dr. Burford said that a number of questions pertaining to the mechanism of operation of the Interim Session have arisen and are not addressed in the Bylaws due to the newness of this particular session. The Speaker indicated that he made interpretations regarding several aspects of operations of the House and brought the Council up-to-date on these interpretations which include (1) late resolutions, (2) resolutions dealing with bylaw changes and (3) credentials of delegates and alternates. He said these would again be spelled out at the opening session of the House of Delegates.

Discussion followed regarding the length of the Interim Session and whether the present two-day format is sufficient to cover all matters presented. Dr. Burford stated that the Interim Session is too new a concept to determine at this time whether the format is satisfactory. However, he did state that the Council does set the time and dates of the Interim Sessions.—**Referred to the Reference Committee on Reports of Officers.**

### REPORT OF COMMISSION ON PUBLIC AFFAIRS

■ Dr. Hetlage reported that a meeting of the Commission on Public Affairs was recently held and Resolution #6 from the 1976 Annual Session was discussed. This resolution called for a study of the feasibility of inviting medical students to the Annual Session. The Commission recommends that a program be established to invite medical students to the MSMA Annual Session and that the Council should decide on the number of students and the final arrangements for funding for the program.

The Commission discussed the possible establishment of a public information and relations campaign for the Association. The Commission will introduce a resolution at the Interim Session that would instruct the MSMA Council to engage services of an outside firm to survey and analyze public opinion in regard to the medical profession.

The Commission also discussed the AMA's "Speaker's Training Program" and recommended to the Council that such a program be held for MSMA members as soon as it can be scheduled.

The Commission members were invited to attend the Meeting of Component Medical Society Representatives which immediately followed the adjournment of the Commission meeting.

Following a brief discussion, on motion duly seconded, the report of the Commission on Public Affairs was accepted by the Council.

### MEETING OF COMPONENT MEDICAL SOCIETY REPRESENTATIVES

Mr. Swarens reported that 23 physicians representing 16 component medical societies attended the Third Annual Meeting of Component Medical Society Representatives. Dr. McAlhany spoke to the group regarding his "MSMA Action Plan" and the representatives expressed general favor of implementing the plan. Dr. Clark explained the "Proposal for a Physician-Owned Professional Liability Insurance Company." Those subjects which drew considerable discussion at the meeting were Physicians Assistants; PSRO; Public Education—The representatives recommended that component societies reestablish or revitalize their "Speakers' Bureaus" to enable physicians to address public bodies and that MSMA supply these with information relating to the cost of medical care. The Committee further recommended that the MSMA Commission on Medical Economics study and devise methods of correcting overutilization of medical care.

Discussions were also held regarding the following:

*Medicare-Medicaid*—It was the consensus that the Association stay in close contact with officials of Medicare-Medicaid and that the program be monitored for possible improvements.

*AMA*—The group recommended that staff study the feasibility of sending AMA material to non-AMA members to encourage their membership.

*Continuing Medical Education*—The Association's CME program received praise.

*Reapportionment of MSMA House of Delegates*—Noted action would be taken by the House at the Interim Session.

*Health System Agencies*—It was suggested that the one method of increasing physician representation is for physicians to become actively involved in "Sub-Area Councils."

*"911" Emergency Number*—Representatives were in favor of establishing "911" as a statewide emergency telephone number. It was suggested that perhaps the Auxiliary to the MSMA might want to pursue "911" as a project this coming year.

*Universal Insurance Forms*—The representatives requested that the Commission on Medical Economics look into the feasibility of establishing a single code that could be used on all insurance forms.

It was agreed by those present that the meeting of component medical society representatives be continued on an annual basis and that the meeting days be changed to Saturday and Sunday and be held during September or October.

Dr. Hetlage stated that he felt this was a very worthwhile and impressive meeting. He said that some individuals present felt that their recommendations were not being carried out. However, it was pointed out that not all things that are recommended will be implemented.

After a brief discussion, motion was made, seconded and carried that the report of the Meeting of Component Medical Society Representatives be accepted.

### CERTIFICATE OF NEED

Dr. Matthews explained that Certificate of Need legislation will again be introduced and that it is getting more difficult each session to prevent passage of this type of legislation. He expects some type of CON bill to be adopted this session.

Following lengthy discussion, Dr. Matthews asked for permission to express the Association's "qualified" support for CON legislation as embodied in last year's SB #231 with an amendment exempting physicians' offices from the bill.

On motion, duly seconded, the Council agreed that MSMA insist that physicians not be included in the bill and otherwise endorse it.—**Referred to the Reference Committee on Miscellaneous Affairs.**

### RESOLUTION #5 ADOPTED BY HOUSE OF DELEGATES AT 1977 ANNUAL SESSION

■ Resolution #5 adopted by the House of Delegates at the 1977 Annual Session was discussed. This regarded spending funds from the Missouri State Medical Insurance company relegated for medical liability defense to obtain suitable legal counsel to perform the basic legal research necessary for the successful pursuit of counterclaims in medical liability cases. Dr. George Hawkins discussed this and the legal opinions obtained from MSMA counsel and another outside legal opinion with the Council.

Dr. Hawkins agreed with the opinions rendered concerning the countersuit situation in Missouri. He mentioned that it would be much more effective and worthwhile at this time to direct MSMA efforts towards the high awards being handed down in Missouri rather than pursue additional legal research concerning countersuits.

### POSSIBLE MERGER OF ST. LOUIS MEDICAL AND COUNTY

Dr. Hetlage indicated that active work is being done regarding the possible merger of the St. Louis Medical Society and the St. Louis County Medical Society and asked that the Council place the matter of what implications this merger might have in the hands of the Committee on Constitution and Bylaws. He called special attention to the implications regarding Councilors in this possible merger.—**Referred to the Reference Committee on Constitution and Bylaws.**

### NEXT COUNCIL MEETING

■ The next meeting of the Council will be held on Friday and Saturday, Dec. 16 and 17, 1977 at the Hilton Inn in Columbia. The Budget Committee will meet on Friday, December 16, at 1 PM; Executive Session of the Council at 5 PM; and Council convenes at 9 AM, Saturday, December 17.—**Referred to the Reference Committee on Reports of Officers.**

## Meeting of Dec. 17, 1977
## Hilton Inn, Columbia

■ Andrew McCanse, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. McCanse; Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes and Max S. Franklin, St. Louis; Richard C. Hedges, N. Kansas City; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. John Torontow, Nevada; Walter German, Springfield; Claude W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Mary K. McCaffree, Jefferson City; I. H. Clark, Kansas City; Richard Fallon, St. Louis; Marvin Singleton, Joplin; Jack Wiles, West Plains; Rae W. Froelich, Lebanon; Robert A. Slickman, Kansas City; Melvin Kasten, Cape Girardeau; William C. Allen and Charles Lobeck, Columbia; David Challoner, St. Louis; William D. Bradshaw, Columbia; Robert E. Bregant, Jefferson City; H. B. Ivy, Springfield; Dr. and Mrs. A. J. Campbell, Sedalia; Mrs. W. Jack Stalmach, Kansas City; Messrs. Roy Pfautch, Jim Hamilton, and Tim Danis, St. Louis; Ron Garrett, St. Louis; Royal O. Cooper, C. C. Swarens, Ronald Ellison, John Kuebler, Becky Hankins, Staff.

### APPROVAL OF PREVIOUS MINUTES

Chairman McCanse opened the meeting by calling for approval of the minutes of the Nov. 2, 1977, Council Meeting. On motion, duly seconded, the minutes were approved as distributed.

### FAMILY PRACTICE RESIDENCY PROGRAM

Dr. William Bradshaw, Columbia, spoke to the Council in regard to family practice residency programs. He indicated that in general, his remarks would closely follow those made before the Council in 1975 which appear in the July, 1975 issue of MISSOURI MEDICINE. At that time, the Council went on record as favoring the establishment of family practice residency training programs. These residency programs would be established in community hospitals over the state in an effort to increase the number of physicians practicing in the State of Missouri. A bill, HB 1044, has been prefiled in the General Assembly which calls for the establishment of these programs. Dr. Bradshaw asked for Council support of this legislation. Following brief discussion, on motion, duly seconded, the Council agreed to give continued wholehearted support to this program.—**Referred to the Reference Committee on Miscellaneous Affairs.**

### STATE HEALTH PLANNING

■ Dr. Robert Bregant, Chairman of the Missouri Statewide Health Coordinating Council, gave the Council a brief progress report regarding state health planning.

Dr. Bregant brought the Council up to date on policy statements which were recently adopted by the Statewide Health Coordinating Council. The purpose of these policies is to provide overall direction to the planning effort relative to broad, important issues and, as such, they will provide the Statewide Health Coordinating Council with the tools necessary to make decisions relative to statewide health issues.

This purpose and scope differentiates policies from "areas of concern" or "problem areas" to be developed later in the planning process. Dr. Bregant reported that his Council has developed a close-working relationship with professional associations, various governmental agencies and HSAs and could potentially become very powerful.

Dr. Bregant pointed out that initially he had some misgivings in regard to the operation of SHCC, but he now feels more optimistic.

The Chairman thanked Dr. Bregant for his report and the Council commended him for the outstanding job he is doing.—**Referred to the Reference Committee on Resolutions.**

### EXECUTIVE SECRETARY'S REPORT

■ Mr. Cooper called the Council's attention to the latest revision of the MSMA Benefits Brochure which was in the folders. He indicated that Missouri has 7,800 M.D.s of whom approximately 5,000 are MSMA members. The recruitment program, as approved at the November Council Meeting, will be initiated in January.

Mr. Cooper distributed to the Council an update on the activities of the professional liability review board along with a copy of an article from the *St. Louis Globe-Democrat* which questions the constitutionality of these boards.

Dr. Sisk recently was appointed to the AMA Ad Hoc Committee on Health Planning and would certainly appreciate any input the Council might have in this area.—**Referred to the Reference Committee on Reports of Officers.**

### PRESIDENT'S REMARKS

■ Dr. McAlhany reported that he had received a request from the Southeast Missouri District Dental Society asking for MSMA approval of a resolution stating that reduction of dental disease could be accomplished by reduction in sugar consumption. Dr. McAlhany pointed out that this resolution had not been adopted by the Missouri Dental Association and felt that this should be done prior to MSMA considering the resolution.

A communication has been received from the Missouri Podiatry Association seeking MSMA approval of a resolution concerning hospital staff privileges for podiatrists. This was presented to the Missouri Orthopaedic Association for its consideration. Its recommendation was that this not be approved. It has been the recommendation of the AMA that each individual hospital should make its own decision on staff privileges for podiatrists using established guidelines. On motion, duly seconded, it was agreed that the Council not accept the resolution as presented by the Missouri Podiatry Association.—**Referred to the Rference Committee on Medical Education and Public Welfare.**

■ Dr. McAlhany reported that he had again written a letter to Governor Teasdale objecting to the lack of funding for the Medicaid Program and again urging the Governor to follow the recommendation that Medicaid be funded to the same level as the Medicare program.

Dr. McAlhany received a letter from the Area II Health Systems Agency seeking the Association's comments on the proposed Area II Health Systems Plan. The Council suggested that the five Councilors in the Area II HSA meet with the Agency to discuss this proposed plan. A meeting has tentatively been set for January 7, 1978, at the Hilton Inn in Columbia.—**Referred to the Reference Committee on Resolutions.**

### PUBLIC RELATIONS

■ At the November, 1977 MSMA Interim Session, the House of Delegates adopted two resolutions instructing the MSMA Council to conduct a public opinion survey and to establish a viable public relations and public information program.

Mr. Roy Pfautch of Civic Service, Inc. spoke briefly to the Council regarding his firm's activities in the area of public opinion surveys. Mr. Pfautch pointed out that it is obvious to most physicians today that the practice of medicine as they deem it to be right and proper and the control of that practice is under a continuous onslaught from various areas. Members of organized medicine should have something to say about their image as it is presented to the public. Mr. Pfautch indicated that his firm has done several public opinion surveys for other state medical associations. He indicated that more decisions are made at the grass roots levels than nationally, so we do need to know the attitudes of the local public. A public opinion survey could provide us with some of these attitudes. When these are learned, his organization does give a very basic list of practical ways to put it to work.

After a brief discussion, the Council deferred action on this public relations issue until the Executive Session.

During the Executive Session, on motion, duly seconded, it was agreed that Civic Service Inc. be retained to provide the Association with a Missouri public opinion survey and a suggested communications program.—**Referred to the Reference Committee on Miscellaneous Affairs.**

### MOMEDICO

■ Dr. I. H. Clark indicated that he was pleased with the progress as made with MOMEDICO and stated that several things need to be accomplished at this meeting by the Council regarding incorporation, etc. of MOMEDICO. He called on Jim Hamilton and Tim Danis of Rollins Burdick Hunter Co. to explain these to the Council.

Mr. Hamilton explained some of the work that has been accomplished to date in setting up MOMEDICO and indicated that there is still much to be done. He indicated that they had been negotiating with several banks regarding original funding for MOMEDICO. He indicated that they are presently negotiating with a St. Louis bank to obtain this funding. Under the terms presented by a letter from Boatmen's National Bank, the Council approved the general conditions of their agreement contingent upon clarification of two of the items under the loan agreement.

Mr. Hamilton presented the Council with a resolution which would give Council approval for authorization of various activities necessary to capitalize and form Missouri Medical Insurance Company, MOMEDICO. On motion, duly seconded, this resolution was approved contingent upon review and approval of MSMA Legal Counsel. The following resolution was approved by MSMA Legal Counsel:

Whereas, The House of Delegates of the Missouri State Medical Association adopted a Resolution, No. 20, on November 3, 1977, authorizing the formation of a professional liability insurance company for physicians, and

Whereas, Preliminary work has commenced to implement this resolution, upon motion duly made, seconded and unanimously adopted, it is

*Resolved:*

(1) That the work being performed by Rollins Burdick Hunter Co. of St. Louis; and the attorneys, Moser, Marsalek, Carpenter, Cleary, Jaeckel, Keaney and Brown; and the accountants, Price Waterhouse & Co.; and the actuaries, Tillinghast, Nelson & Warren, which has been completed to date and which is proposed to be completed in the near future, has been reviewed and approved;

(2) That the aforesaid persons are authorized to take the necessary steps to arrange for the issuance of subordinated notes of MSMA in an appropriate form and in an adequate dollar amount to enable MSMA to raise the funds to purchase the stock of the aforesaid insurance company; and

(3) After the sale of such notes and the raising of other additional capital, as required, the stock of said company shall be purchased by MSMA, except for those shares of stock that are required by law to be issued to the individual incorporators; and all rights appurtenant thereto shall be exercised by the parties hereinafter named; and

(4) In the event it is necessary to borrow money in addition to the capital raised by the sale of the aforesaid subordinated notes, such borrowings shall be made from time to time and in such amounts and in such manner as may be approved by the persons hereinafter designated; and

(5) All activities requiring the further approval by or signature of any officer or representative of MSMA shall be obtained from Howard J. McAlhany, M.D., President, Missouri State Medical Association; I. H. Clark, M.D., President, Missouri State Medical Insurance, Inc.; and Royal O. Cooper, Executive Secretary, Missouri State Medical Association, and such persons are fully authorized to act in behalf of the Council with respect to these matters and to do all things necessary to implement Resolution No. 20, enacted by the House of Delegates of the Missouri State Medical Association on November 3, 1977.

Dr. McAlhany moved that the 15 members of the MSMA Council plus Dr. I. H. Clark and the Executive Secretary serve as the incorporators of MOMEDICO and that the present MSMI Board serve as a temporary Board of Directors to expedite matters until a permanent Board of Directors can be named. The motion carried.

The following resolution was approved to be submitted to the Secretary of State:

*Resolved*, That the president and secretary of this corporation are hereby authorized to execute in behalf of this corporation, under the corporate seal thereof, a written instrument in accordance with an Act relating to the sale or other disposition of securities, known as the "Missouri Uniform Securities Act," irrevocably appointing the Commissioner of Securities or his successor in office, to do any and all the things in behalf of this corporation specified in said Act to be done by said Commissioner of Securities, and further irrevocably consenting that service as therein referred to shall be valid and binding and be deemed personal service upon this corporation so long as it shall have liabilities outstanding in the State of Missouri.

Mr. Hamilton thanked the Council members for their time and indicated that hopefully they will be able to write coverage under MOMEDICO by February 1 and no later than March 1, 1978.

### AMA DELEGATES' REPORT

Dr. Rae Froelich thanked the Missouri delegation for their hard work at the recent AMA Interim Session held in Chicago. He indicated that he felt the delegation was more informed on various items than at some times in the past.

Dr. Froelich discussed Resolution #50, as submitted by the Missouri delegation, regarding psychiatric fees being included in insurance policies. Our original resolution and a Georgia delegation amendment were referred back to the Board of Trustees for study and report back at the next session of AMA.

It was suggested that MSMA staff analyze MSMA resolu-

# MSMA Auxiliary Holds 53rd Annual Convention

Special guests included *(left to right)* Mrs. M. Bruce Martin, president of the Southern Medical Association Auxiliary; U. S. Rep. Thomas Coleman, speaker at the Public Affairs Breakfast with Mrs. Robert A. Slickman, MSMA President-Elect John N. Martin and Mrs. Keith D. Jones; and Mrs. Manuel A. Bergnes, president-elect of the AMA Auxiliary. Mrs. Slickman and Mrs. Jones were co-chairmen for the breakfast.

President-Elect Martin; Mrs. W. Jack Stelmach, Auxiliary president; Mrs. A. J. Campbell, president-elect and MSMA President Howard McAlhany at the luncheon honoring MSMA officers and advisory council.

As husbands of the Auxiliary president-elect and president respectively, Dr. Campbell *(left)* and Dr. Stelmach were honored guests at the installation luncheon on Saturday. Their "traditional" appearance on the program was a highlight of the event.

Members of the MSMA Auxiliary elected and installed new officers for 1978-1979. They include *(seated, left to right)* Mrs. Richard King, membership-at-large chairman; Mrs. Rudy Ruhling, president-elect; Mrs. A. J. Campbell, president; Mrs. Sam Gaston, first vice-president; Mrs. Pat A. Barelli, second vice-president. *(Standing)* Mrs. David A. Tillema, seventh district director; Mrs. Charles Cozean, auditor; Mrs. Jerry Meyer, fourth vice-president; Mrs. Kenneth Siu, third vice-president; Mrs. F. T. H'Doubler, treasurer; and Mrs. James Haddock, recording secretary. Officers not pictured are Mrs. Robert Stockwood, corresponding secretary, and Mrs. George P. Wilson, parliamentarian.

tions with potential referral to the AMA and obtain information as to whether prior AMA action has been taken regarding the subject.

Dr. Froelich reported that between the conclusion of the last AMA meeting and the opening of the next meeting there are a group of specialty societies that may submit names of delegates to the AMA for inclusion in the House. Dr. Froelich spelled out the criteria necessary for this specialty representation. He suggested that perhaps the Councilors might wish to contact their societies and take action to try to get Missouri physicians to represent their specialties in the AMA House. He also suggested that staff might contact the various specialty societies in Missouri advising them of this change and offering to aid them in any way they can in getting Missouri delegates elected.

Dr. Froelich gave a brief slide demonstration regarding the financial status of the AMA, income, expenditures, etc. He felt that this might also be of interest to the MSMA House of Delegates. However, it was pointed out that, perhaps, printed material might be a better way of disseminating this information.

Chairman McCanse thanked Dr. Froelich for his presentation.—**Referred to the Reference Committee on Resolutions.**

### MSMA AUXILIARY

■ Mrs. Stelmach reported that the Fall Conference held in October was a big success and complimented the Jasper County Auxiliary and Medical Society for their assistance.

She reported that the Auxiliary is sponsoring a scientific session at the MSMA Annual Session, along with the Missouri Psychiatric Association, on the subject of the "Impaired Physician."

The immunization brochure, which the Auxiliary asked the hospitals to include in their "new mother packets," has been well received. There has been a very good response from the hospitals. Instructors are still being trained in CPR. Immunization and timetable record books will be mailed after the first of the year.

Mrs. Stelmach reported that the Auxiliary has officially changed its name to "MSMA Auxiliary."

On motion, duly seconded, the report of the MSMA Auxiliary was approved.

### REPORT OF BUDGET AND FINANCE COMMITTEE

The Budget and Finance Committee met on Friday afternoon, December 16, prior to the Council Meeting on Saturday. The Committee reviewed the material presented which showed Exhibit A—Actual Income through October 31, 1977; Expected Total Income for 1977; Income Budget for 1977 and Estimated Receipts for 1977; Exhibit B—Actual Expenditures through October 31, 1977; Estimated Expenditures for 1977; Budget for 1977 and Proposed Budget for 1978; Exhibit C—Actual Meeting and Committee Expenses through October 31, 1977; Estimated Expenses for all of 1977: Budget for 1977 and Proposed Budget for 1978. A breakdown of anticipated income and expenses for the years 1977 and 1978 was also included.

Dr. Stokes, Chairman of the Budget and Finance Committee, reviewed the exhibits and breakdown with the Council and recommended the following proposed budget for 1978:

| | |
|---|---|
| Salaries | $207,800.00 |
| Furniture & Fixtures | 2,200.00 |
| General Expense | 9,500.00 |
| Office Supplies | 7,500.00 |
| MSMF Assessment | 44,330.00 |
| Journal Expense | 55,000.00 |
| Postage | 8,000.00 |
| Equipment Rentals & Repairs | 4,600.00 |
| Telephone & Telegraph | 10,000.00 |
| Pension Expense | 21,000.00 |
| Legal & Professional | 10,000.00 |
| Payroll Taxes | 12,000.00 |
| Commission-Committee Meetings | 80,000.00 |
| Annual Session | 34,000.00 |
| Discretionary Council Fund | 5,000.00 |
| Taxes—I.R.S. | 600.00 |
| Travel Expense | 10,000.00 |
| Building Expense | 7,500.00 |
| Improvements to Building | 8,000.00 |
| MMPAC Educational Projects | 3,500.00 |
| Interim Session | 6,000.00 |
| Countersuit Program | 20,000.00 |
| AMCAP (Computer Program) | 12,000.00 |
| Reinvested Interest—Reserve Fund | 13,900.00 |
| Public Relations Program | 26,000.00 |
| Total | $618,430.00 |

On motion, duly seconded, the report and recommendations of the Budget and Finance Committee, including the 1978 Budget, were approved.

Dr. Stokes presented the Council with the following breakdown of total MSMA expense by various functions for a six-year period indicating the percentage of expenses for various activities have remained fairly constant.

| *Expense* | *1977* | *1976* | *1975* | *1974* | *1973* | *1972* |
|---|---|---|---|---|---|---|
| Salaries | 39.2 | 46.1 | 42.3 | 42.9 | 39.8 | 31.9 |
| Pension | 5.1 | 4.7 | 5.5 | 10.6 | 5.0 | 3.2 |
| Commission and Committee | 10.9 | 10.7 | 10.1 | 9.6 | 8.5 | 7.6 |
| Annual Meeting | 8.6 | 7.9 | 7.5 | 7.9 | 8.5 | 7.6 |
| Council | 3.8 | 2.3 | 3.2 | 2.6 | 2.4 | 2.0 |

Dr. Stokes stated that a resolution passed by the 1976 MSMA House of Delegates regarding increased student participation in the MSMA Annual Session was discussed. This resolution carried with it the added commitment that some study of funding be made. This was discussed and the Council was requested to encourage the attendance at MSMA Annual Sessions of additional medical students. Staff was directed to correspond with the medical schools seeking a commitment from the schools regarding financing for these students and the State Association will match that funding if possible.

During a discussion, it was pointed out that perhaps local societies and/or local physicians might wish to make voluntary contributions to finance medical students' attendance at MSMA Annual Sessions.

The Budget Committee recommends that an increased number of student participation be encouraged on a local basis and local societies and individuals be encouraged to fund their expenses. On motion, duly seconded, this recommendation was approved.

The Budget Committee also recommended that increased attendance by MSMA members to the AMA conventions be encouraged. However, it was felt that the Association could not provide expenses for these additional physicians and recommends that we continue to fund only those individuals presently being funded to the AMA meetings. On motion, duly seconded, this recommendation was approved.

### 1978 AMA ANNUAL MEETING

Dr. Hetlage suggested that since the AMA Annual Meeting in June, 1978, is being held in St. Louis, that staff make a block of room reservations for the MSMA Council. On motion, duly seconded, it was agreed that all Councilors be encouraged to attend at their own expense and staff contact each Council member to determine if he will be attending the AMA meeting and if so, MSMA will attempt to make room reservations.—**Referred to the Reference Committee on Reports of Officers.**

### REPORTS OF THE DEANS

■ Dr. David Challoner, Dean, St. Louis University School of Medicine, gave a brief update regarding University activities to the Council.

Dr. Challoner thanked the Council for its interest and help regarding the health manpower legislation and the resolution which the MSMA House passed and sent to the AMA.

He reported that Dr. Max Franklin has retired from the faculty of St. Louis University and has been named Associate Professor of Medicine Emeritus.

Dr. Charles Lobeck, Dean, University of Missouri-Columbia Medical Center, indicated that a study is now being conducted regarding the feasibility of a fund drive for construction of a new library at the medical center. The quality of the physical facility ranks 18th in the quality of the Big Ten and Big Eight.

Dr. Lobeck reported that they have received 600 applications for Medical School for next year; only Missouri residents are accepted.

He reported that there are nurse practitioner programs in the Nursing School which are supported through a Kellog grant. The intent is that they will operate within the nurse and medical practice act in the state of Missouri.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### REPORTS OF DISTRICT COUNCILORS

■ *Districts #1 and #6*—Drs. Hedges and Torontow indicated that they did not have a report at this time.

*District #2*—Dr. Walterscheid reported that he attended the meeting of the Missouri Academy of Family Practice in St. Louis. He and Don Wilson also had a meeting with the Pike County Medical Society.

*District #3*—Dr. Bradley reported that disciplinary action had been taken by the St. Louis Medical Society against several of its members. He also reported on the progress of the merger of St. Louis Medical and St. Louis County Medical societies.

*District #4*—Dr. Hetlage reported that a good meeting was held between Councilor District #4 physicians and legislators on December 6. Some of the topics discussed were distribution of physicians, admission of foreign students, emergency medical services, Medicaid, malpractice, the cost of medical care, etc. A strong plea was made by one of the legislators for us to take positive action on strengthening the Board of Healing Arts.

*District #5*—Dr. Ekern reported that they do plan to have a meeting with their legislators after the first of the year.—**Referred to the Reference Committee on Miscellaneous Affairs.**

■ Dr. Ekern stated that as a point of interest, no funds are included in the 1979 proposed Federal DHEW Budget for PSRO.—**Referred to the Reference Committee on Resolutions.**

■ *District #7*—Dr. McCanse reported that Jackson County is in the process of developing a policy statement regarding advertising by physicians. One has just been developed regarding contacts with non-member physicians; proposed members, etc.

Jackson County Medical Society has been asked to approve the pre-hospital treatment protocols for paramedical personnel in regard to emergency medical services.

*District #8*—Dr. German reported that the Greene County Medical Society had received CME approval for a three-year period. The Greene County Medical Society will be meeting with its local legislators in the near future.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

■ Dr. John Budd, AMA President, will be in Springfield on January 12-13, 1978 for the installation of the new President of the Greene County Medical Society, Dr. Ashley. Dr. German invited the Councilors to attend this installation.—**Referred to the Reference Committee on Resolutions.**

■ *District #9*—Dr. Cooper reported that the Academy of Family Physicians sponsored a program in his District on December 11. A meeting also was held for the M.D.s, D.O.s and lawyers. Many interesting comments were given in regard to Dr. McAlhany's "Action Plan."

*District #10*—Dr. Hansbrough reported that a meeting was held with the legislators from his district and one of the topics discussed was the possibility of establishing "foster" homes for the elderly.—**Referred to the Reference Committee on Miscellaneous Affairs.**

■ HSA hearings have been set for Centerville and Sikeston. —**Referred to the Reference Committee on Resolutions.**

### CONTINUING MEDICAL EDUCATION

■ Mr. Ellison asked for Council approval of the following organizations and hospitals for CME accreditation:

| | |
|---|---|
| Missouri Chapter, American College of Surgeons | 1 year |
| St. Francis Hospital, Washington | 2 years |
| North Kansas City Memorial Hospital | 1 year |
| Missouri Baptist Hospital, St. Louis | 3 years |
| Baptist Memorial Hospital, Kansas City | 2 years |
| St. Joseph's Hospital, Kansas City | 1 year |
| Deaconess Hospital, St. Louis | 2 years |
| Kansas City Surgical Society | 1 year |
| Greene County Medical Society | 3 years |
| Freeman Hospital, Joplin | 3 years |

On motion, duly seconded, the Council approved CME accreditation for the foregoing.

### 120TH ANNUAL SESSION

Mr. Ellison reported that the program for the 120th Annual Session is shaping up very well. Twenty-eight scientific sessions will be held, sponsored by 14 specialty organizations and two voluntary health organizations. For the first time this year, the emergency room physicians will be meeting with us.—**Referred to the Reference Committee on Medical Education and Public Welfare.**

### LEGISLATIVE REPORT

■ Dr. Matthews, Chairman of the Legislative Committee, brought the Council up to date on some of the bills that have been pre-filed in the General Assembly. These include the following:

*SB 507—Certificate of Need*—Has been pre-filed and it closely follows the minimum requirements of federal regulations including an exemption for physician offices and equipment. A "Hospital Cost Containment Bill" has been introduced which would regulate capital expenditures. The Legislative Committee recommends qualified support of SB 507 with amendments.

*Optometrists and Drugs*—MSMA is on record as opposing the use of drugs by optometrists (Resolution #12, A-1977). Another bill, SB 518 has been introduced which would authorize some optometrists to use "topically applied diagnostic drugs." The Legislative Committee recommends that MSMA oppose SB 518.

*Licensing of Allied Health*—Once again, several licensing bills have been introduced. These include SB 535, which would license Physician Assistants; HB 970, which is a similar bill; a bill that would license physical therapy assistants under the Board of Healing Arts; HB 1468, which would license Social Workers. We also expect bills to be introduced which would license home health-care agencies and "immediate care specialists." As a point of information, the MSMA is currently conducting a study on the use of physician assistants. The Legislative Committee voted to oppose the licensing of all paramedical personnel at this time.

*Minor's Consent*—Last year's Minor's Consent bill, which passed the Legislature, is believed by many to be unconstitutional as it relates to abortion. SB 597 would amend that act on the abortion subject only. The Legislative Committee recommends no position at this time.

On motion, duly seconded, the above four items were accepted by the Council.

*Licensing Boards*—SB 672, which would place a lay person on each of the professional licensing boards, has been introduced. SB 835 would establish a single operating fund for all of the licensing boards under the Department of Consumer Affairs, Regulation and Licensing. Also, legislation has been introduced which would make Chapter 334 conform to the present practice in testing and licensing medical graduates under the Board of Healing Arts. Dr. Matthews stated that the Legislative Committee felt that the lay person on the Board of Healing Arts should be an additional person. The Legislative Committee feels that the language in Chapter 334 should be changed to make Chapter 334 conform with the present examination being used by the Board.

*Generic Drugs*—There are several bills introduced which would allow pharmacists to substitute generic drugs with varying requirements of physician approval. The MSMA policy opposes governmental interference in medicine through mandated generic prescribing. The Legislative Committee recommends that we look at these individually before making any decision regarding them.

*Laetrile*—Several bills have been introduced authorizing the sale of the substance laetrile, in Missouri. The Legislative Committee recommends that the MSMA opposes these measures since "Laetrile is a substance that has no proven, beneficial value as a drug."

*Medical Education*—HB 1044 provides funds for establishing Family Practice Residencies. Two bills have been introduced. They are SB 805 and HB 884 which would establish a medical student loan program in the state. The MSMA is working with legislators on a bill that would aid in establishing more primary care residencies with emphasis on rural areas of the state.

It was the recommendation of the Legislative Committee that the MSMA supports any measure that would increase residency programs in the state of Missouri with strong support to the Family Practice legislation, HB 1044.

On motion, duly seconded, the above four items were accepted by the Council.

*Medicaid*—New bills which would alter the Medicaid program are SB 610, which would allow Medicaid providers an opportunity to have a hearing before the Division of Family Services on claims; an open formulary bill; and a bill which would allow for a physician fee for preparation of laboratory specimens. The MSMA is committed to seek adequate funding for the physician services involved in the program.

*Malpractice*—The MSMA is again supporting four bills dealing with the malpractice issue. *HB 1144* is the Expert Witness bill; *SB 533*, the Collateral Source bill; *SB 819*, the Structured Award bill; and *HB 1280*, which is a "Good Samaritan" bill MSMA has supported in the past.

*Sudden Infant Death Syndrome*—SB 765 and a House

**Brief Summary of Prescribing Information**
**Combined TEGOPEN®** (cloxacillin sodium)
**Capsules and Oral Solution**
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

**Indications:** Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**Important Note:** When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**Contraindications:** A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**Warning:** Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**Precautions:** The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**Adverse Reactions:** Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**Usual Dosage:** Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.:* INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

**Supplied:** Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100. Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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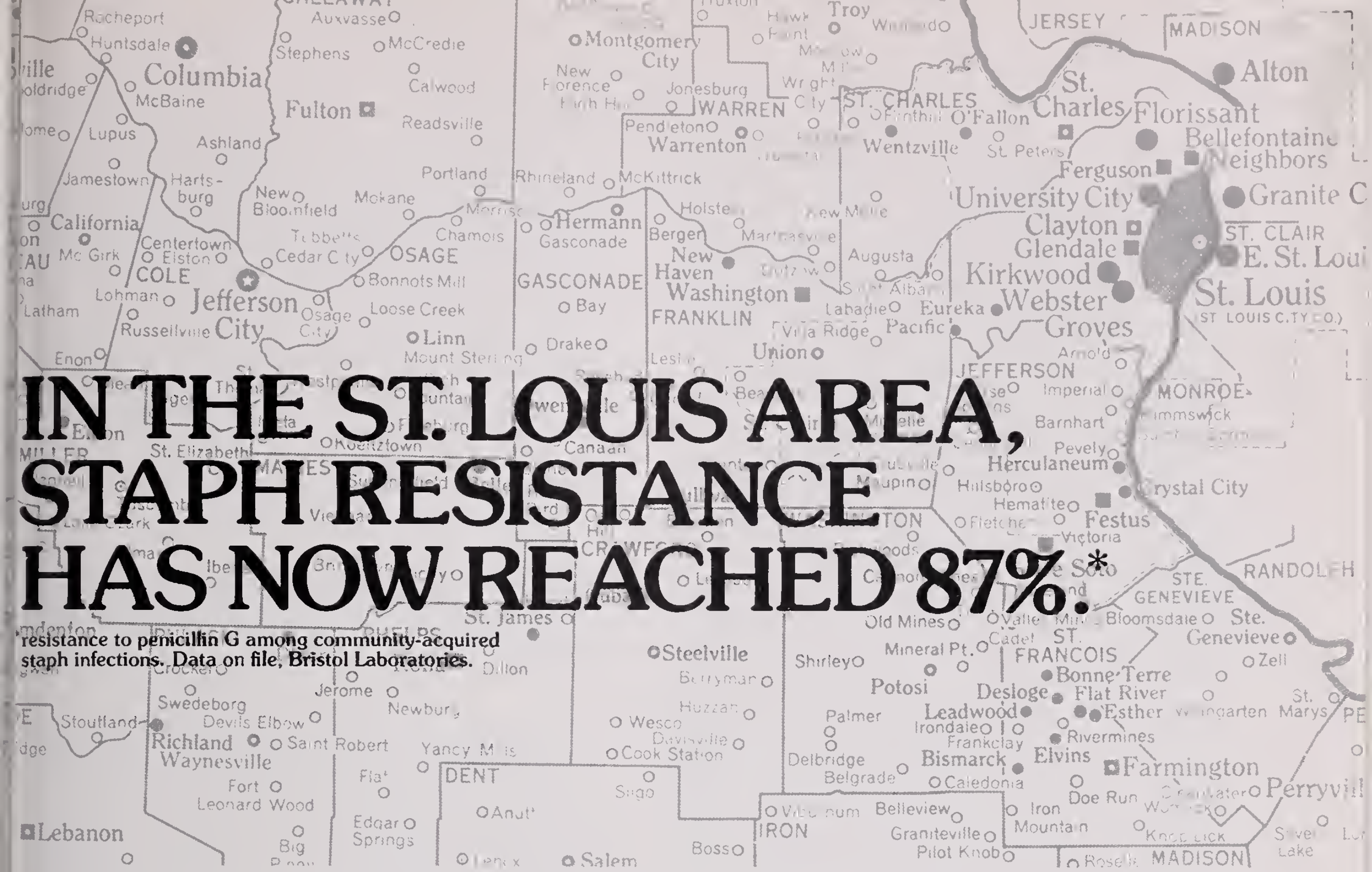
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# IN THE ST. LOUIS AREA, STAPH RESISTANCE HAS NOW REACHED 87%.*

*resistance to penicillin G among community-acquired staph infections. Data on file, Bristol Laboratories.

## WHEN YOU CAN'T RULE OUT STAPH, CONSIDER

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# (cloxacillin sodium)

## ..."THE PENICILLIN OF TODAY"

- Effective against nonpenicillinase-producing staphylococci, beta-hemolytic streptococci, and pneumococci.†

†NOTE: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin. The clinical significance of in *vitro* data is unknown.

- 10 times more active against strep than staph.
- Well absorbed from the G.I. tract.‡

‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.

Please see brief summary

Bill would permit autopsies at state expense on infants who are suspected victims of SIDS. The MSMA recently passed a resolution favoring such action.

*Chiropractors*—SB 699 would allow chiropractors to use "adjunctive therapy" as defined by the Board of Chiropractic Examiners and SB 692 which would provide for payment for chiropractic services under Medicaid. The Legislative Committee recommends opposition to these two bills.

On motion, duly seconded, the above four items were accepted by the Council.

*Death Legislation*—Definition of Death bills have been introduced in both the House and the Senate—SB 600 and HB 1020. The MSMA supported this bill last year. The AMA recently changed its position on it. A bill has been introduced called the "Right to Die" bill. The MSMA has not taken a position on this bill in the previous session. The MSMA will again support the definition of death bills and will take no position on the "Right to Die" bill.

*Rubella*—The MSMA has been asked to support a bill that would require rubella testing at the time of applying for a marriage license. This bill has not as yet been filed. The Legislative Committee has agreed to support such a bill.

*Mental Health*—A bill has been introduced that would call for the revision of the commitment law for mental patients. This is a revision of the bill introduced last year. The Legislative Committee recommends no position at the present time. The MSMA is on record as favoring a change in the composition of the Mental Health Commission providing for more physician representation. The MSMA drafted a bill, but the Psychiatric Association recommends that the MSMA not introduce it at this time.

*Advertising*—Two bills, pre-filed, would establish rules for professional advertising. The Legislative Committee recommends these bills be studied individually.

On motion, duly seconded, the above four items were accepted by the Council.

Dr. Matthews encouraged the Council members to write to their individual Senators and Representatives and request copies of bills in which they are interested. This will at least let the legislators know of your interest. Chairman McCanse thanked Dr. Matthews for the splendid Legislative Report and commended him for a job well done.—**Referred to the Reference Committee on Miscellaneous Affairs.**

### 1978 INTERIM SESSION

■ The 1978 Interim Session of the MSMA will be held in Cape Girardeau on November 4 and 5, 1978 at the Ramada Inn.

### NEXT COUNCIL MEETING

The next Council Meeting will be held at the Hilton Inn in Columbia on February 3 and 4, 1978.—**Referred to the Reference Committee on Reports of Officers.**

## Meeting of Feb. 4, 1978
## Hilton Inn, Columbia

■ Andrew McCanse, M.D., Kansas City, Chairman, called the meeting to order. Those present were Drs. McCanse; Howard J. McAlhany, Springfield; John N. Martin, St. Joseph; John I. Matthews, Jefferson City; James Stokes, St. Louis; Max S. Franklin, St. Louis; I. H. Clark, Kansas City; Edwin K. Burford, Cape Girardeau; Richard Hedges, N. Kansas City; John Walterscheid, Hannibal; Richard V. Bradley, St. Louis; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; Walter German, Springfield; Claude W. Cooper, Thayer; E. T. Hansbrough, Poplar Bluff; Gary Dyer, St. Joseph; Richard Fallon, St. Louis; Melvin Kasten, Cape Girardeau; T. J. Cooper, St. Louis; William Stoneman, St. Louis; William C. Allen and Charles Lobeck, Columbia; R. K. Noback, Kansas City; H. B. Ivy, Springfield; George H. Ladyman, Poplar Bluff; Howard Linville, Kansas City; Garth Russell, Columbia; Mrs. W. Jack Stelmach, Kansas City; Mrs. A. J. Campbell, Sedalia; Representatives from Rollins Burdick Hunter and Messrs. Royal O. Cooper, C. C. Swarens, Don Wilson, John Kuebler and Mrs. Becky Hankins, Staff.

On motion, duly seconded the minutes of the Dec. 17, 1977 Council Meeting were approved with the following correction. It was reported in the Dean's Report of the December meeting that Dr. Max S. Franklin was retiring from positions held at the St. Louis University School of Medicine. Correction to the minutes was made to reflect the fact that Dr. Franklin definitely is *not retiring.*

### TREASURER'S REPORT

Dr. James Stokes, Treasurer, reported that the MSMA books have been audited for 1977 and all seems to be adequate and in order. The bond for the Treasurer has been increased to $50,000. The audited financial report will appear in the March issue of Missouri Medicine.

### EXECUTIVE SECRETARY'S FOLDER

Mr. Cooper reported that through the Membership Recruitment Program, which the Council approved at the December meeting, thus far about 20 applications for membership have been received. Membership for 1977 had a net gain of 171 members, most of these in the larger societies. He indicated that billings have been sent to the entire membership through the MCAP Program and a second billing will go out on February 17.

It appears that for the April, 1978 Annual Session, the House of Delegates will number 346, including delegates-at-large and student delegates.

On Dec. 31, 1977 MSMA had 3,713 AMA members. If we could obtain 288 more members, we would be entitled to an additional AMA Delegate.

### PRESIDENT'S REMARKS

Dr. McAlhany stated that Dr. Finnegan, the Editor of Missouri Medicine had agreed to remain as Editor for one more year in 1977 and, at that time, a search committee was appointed to seek a new Editor. The search committee has suggested that the Editor of Missouri Medicine be Dr. Wilfred Wooldridge, a Springfield dermatologist. Dr. Wooldridge has been on the Editorial Board since its inception in 1956 and a member of the Publications Committee since 1969. On motion, duly seconded, the Council designated Dr. Wooldridge as Editor.

Dr. McAlhany then appointed the following three physicians to serve on the liaison committee with the Missouri Pharmaceutical Association: Dr. Louis P. Hetlage, Dr. Granville Clark and Dr. Mary McCaffree.

President McAlhany reported that the Chairman of the Council had an editorial printed in the January 16 issue of *AMA News.*—**Referred to Reference Committee on Reports of Officers.**

### COUNCILOR DISTRICT REPORTS

■ *District #1*—Dr. Hedges reported that on January 7, several Councilors met with the executive director of the Area II Health Systems Agency to go over the Area II Health Systems Plan. He stated that he felt they were able to analyze the Plan very well and give some helpful input. —**Referred to Reference Committee on Resolutions.**

■ *District #2*—Dr. Walterscheid reported that Marion-Ralls-Shelby County Medical Society held a good meeting recently with speakers from the University of Missouri Medical Center.

*District #3*—Dr. Bradley reported that the vote on consolidation of St. Louis Medical Society and St. Louis County Medical Society will take place on February 11.—**Referred to Reference Committee on Constitution and Bylaws.**

■ Dr. Bradley also reported that there is currently being promulgated in the Third District a St. Louis Metro Health Plan. This is a prepaid plan and the physicians involved are of the highest quality.—**Referred to Reference Committee on Resolutions.**

■ *District #4*—Dr. Hetlage reported that 30 officers and delegates from his district met on January 31 and discussed various subjects. Much discussion was held regarding the Planning Committee. He indicated this would be discussed during the Planning Committee Report.

The 4th District held a discussion regarding the efficiency of the present legislative contact system. Many physicians feel they lack the proper background for contact. It was their suggestion that the Legislative Report be sent to all members of the MSMA House of Delegates, alternate delegates and society officers.

Dr. German then spoke to this issue as Chairman of the newly-formed Ad Hoc Committee on Political Affairs. A questionnaire was sent to our present Legislative Contact List requesting information regarding their senators and representatives and their contact with them. Dr. German indicated his dismay at the lack of response to this questionnaire and how little the MSMA is actually doing in the field of legislation. Three hundred and sixty-five questionnaires were sent with a total of 102 returned. These returns indicated that one third of our senators and two thirds of the representatives in the House in Jefferson City have no contact with anyone in organized medicine.

The Council discussed various methods of improving communications in the legislative field. Dr. German indicated there will be a booth at the MSMA Annual Session at which a physician can sign up as a legislative contact person. The Ad Hoc Committee also is considering sending an explanatory letter to the entire MSMA membership and Auxiliary regarding the current problems and what needs to be accomplished in this area. Also involved in this effort might be the printing of the Legislative Report in various component medical society bulletins.

On motion, duly seconded, it was agreed that the matter of legislative contacts be referred back to the Ad Hoc Committee on Political Affairs for further study and recommendation.—**Referred to Reference Committee on Miscellaneous Affairs.**

■ The 4th District members discussed the goals of the MSMA for 1978 and beyond. First and foremost, it was felt that organized medicine should get off the defensive and on to the offensive.—**Referred to Reference Committee on Reports of Officers.**

■ Blue Shield and UCR Programs by Third Party Carriers were discussed. There seems to be a variance in fee schedules between all third-party carriers. The 4th District recommended that this be sent to the Commission on Medical Economics for their further action.

Dr. Hetlage reported that they again discussed the cost of medical care and the need for continuing dialogue with the public on the matter. Several new items coming under this topic were the following:

(1) Awareness of the overuse of ancillary services by hospitals as a means of increasing profit.

(2) The impact of present concepts of inpatient hospital care, versus outpatient hospital care, need to be investigated in depth.

(3) It was felt that each hospital should have a lay-administrative-physician board to study the costs of inpatient hospital care and the policies of that particular hospital related to the cost of medical care.

(4) Like government elsewhere, the cost plus payment to hospitals by third-party carriers such as BC, Medicare and Medicaid, is counter-productive since no limits are placed upon the amount of money a hospital may spend in producing its services.

(5) The present system of medical care seems to be insufficient because it allows a patient to directly consult a specialist without economic restraint of a conscientious primary physician.—**Referred to Reference Committee on Resolutions.**

■ Dr. Hetlage indicated at this point that this concluded his Councilor District Report. However, he did wish to make some remarks as Councilor Advisor to the Commission on Public Affairs.

He stated that if the Commission has been given the charge of the Public Relations program as passed by the MSMA House of Delegates at the Interim Session, he feels that now is the time to begin implementation of the program. He gave several suggestions regarding ways in which this might be carried out, including speakers' bureau, closed circuit TV training sessions, etc. He asked the Council who would handle this PR program.

Chairman McCanse requested the Commission Chairman and the Councilor Advisor to meet and discuss the charge given to the Commission regarding the PR Program.—**Referred to Reference Committee on Miscellaneous Affairs.**

■ *District #5*—Dr. Ekern reported that the PSRO in his area is working well and receiving good cooperation from the physicians.—**Referred to Reference Committee on Resolutions.**

■ A 5th District Meeting was held recently with very good attendance. Dr. Matthews gave the formal program regarding legislation with a number of 5th District legislators in attendance.—**Referred to Reference Committee on Miscellaneous Affairs.**

■ Dr. Ekern called on Dr. Bill Allen for remarks regarding the meeting held to discuss the Area II HSA Plan. Dr. Allen pointed out that some of the Plan did incorporate suggestions from the Federal Guidelines. He told the Council the make-up of the subcommittees, committees, etc. responsible for drawing up the Plan. He indicated that there were probably 500-600 people who worked on this plan during its various stages.—**Referred to Reference Committee on Resolutions.**

■ *District #7*—Dr. McCanse reported that Mayor Wheeler appeared before the Jackson County Medical Society Board of Directors seeking their assistance and cooperation in establishing a voluntary cost containment program. The Society agreed with this general idea of cost containment. —**Referred to Reference Committee on Medical Education and Public Welfare.**

Dr. McCanse said that Jackson County has come out with a set of guidelines for physician advertising.

■ Kansas City Blue Shield is sending out a questionnaire to physicians in their service area on the matter of fee changes and whether we should be shifting from a UCR program to a standard fee.—**Referred to Reference Committee on Resolutions.**

■ The Jackson County Medical Society Board of Directors discussed state legislation. There is a tendency to rely on the

MSMA in this area. The Board has planned another Legislative Breakfast and it is felt this will be educational for both the legislators and the Board of Directors.—**Referred to Reference Committee on Miscellaneous Affairs.**

■ *District #8*—Dr. German reported that Dr. Budd, AMA President, visited Springfield recently. He was well received and received good press coverage for medicine.

Dr. Glenn Turner, a Springfield physician, has published a book on the subject of cardiovascular case units.—**Referred to Reference Committee on Medical Education and Public Welfare.**

■ Dr. German reported that a Springfield physician asked him to see if the Council would reconsider their decision made at the December Meeting regarding licensing of allied health personnel under the Board of Healing Arts. The doctor feels that opticians are now afraid that optometrists are going to seek passage of legislation that would prohibit opticians from fitting glasses.

Chairman McCanse referred this matter of opticians and optometrists to the Legislative Committee.—**Referred to Reference Committee on Miscellaneous Affairs.**

*District #9*—Dr. Cooper commended Dr. Martin for his efforts regarding MMPAC.

■ *District #10*—Dr. Hansbrough reported that PSRO is working in his district and is gathering a great deal of statistics.—**Referred to Reference Committee on Resolutions.**

### REPORT OF MSMA AUXILIARY

■ Mrs. Stelmach reported that the Auxiliary has received a good response to its issuance of immunization booklets. Regarding the MSMA membership packets, Mrs. Stelmach indicated that the next time they are mailed, they would like very much for a brochure on the Auxiliary to be included.

The Auxiliary is co-sponsoring a seminar on impaired physicians with the Missouri Psychiatric Association at the upcoming MSMA Annual Session.

Mrs. Campbell asked the Council's permission to begin preliminary work on the "911" emergency number throughout the state. This is to assist the MSMA in this project. It was moved, seconded and carried that this permission be granted.—**Referred to Reference Committee on Reports of Officers.**

### REPORT OF COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

■ Dr. Ladyman, Chairman of the Commission, reported they had held a telephone conference to discuss the ramifications in Missouri of the physician assistant. A resolution regarding PAs was referred to this Commission for further study. The Commission was brought up to date on the various activities in Missouri regarding physicians assistants. There also was a great deal of discussion concerning the legislation currently before the Missouri General Assembly seeking certification of physician assistants. It was generally felt that this legislation should not be allowed to pass the General Assembly until further study and more specific recommendations can be made concerning the specific duties and supervision of physician assistants.

After lengthy discussion, the Commission on Continuing Education and Health Manpower made the following recommendations:

1. To assure that a physician assistant has met certain predetermined qualifications, he/she must have successfully completed the certifying Examination for Primary Care Physician's Assistants. Evidence of this examination must be provided to the State Board of Registration for the Healing Arts prior to being allowed to work in the State of Missouri.

2. The AMA defines three types of physician assistants as follows:

"The Type A assistant is capable of . . . collecting historical and physical data, organizing these data, and presenting them in such a way that the physician can visualize the medical problem and determine appropriate diagnostic or therapeutic steps. He also is capable of assisting the physician by performing diagnostic and therapeutic procedures and coordinating the roles of other, more technical assistants. He is distinguished by his ability to integrate and interpret findings on the basis of general medical knowledge and to exercise a degree of independent judgment.

"The Type B Assistant, while not equipped with general knowledge and skills relative to the whole range of medical care, possesses exceptional skill in one clinical specialty or, more commonly, in certain procedures within such a specialty. Because his knowledge and skill are limited to a particular specialty, he is less qualified for independent action.

"The Type C Assistant is capable of performing a variety of tasks over the whole range of medical care under the supervision of a physician, although he does not possess the level of medical knowledge necessary to integrate and interpret findings. He is similar to a Type A Assistant in the number of areas in which he can perform, but he cannot exercise the degree of independent synthesis and judgment of which Type A is capable."

Most accredited programs training assistants to the primary care physician are generally preparing individuals to function at a Type A level of responsibility.

3. A physician wishing to employ a physician assistant must submit to the Board of Healing Arts a written statement establishing the need for a physician assistant, demonstration of the ability to provide proper supervision and the necessary credentials of the supervising licensee and physician assistant. This relationship between the physician and physician assistant must be approved by the State Board of Registration for the Healing Arts. There should be an opportunity for renewal of this approval to update necessary information.

4. The physician assistant shall work under the direct supervision of a licensed physician in good standing with the licensed physician assuming legal liability for the services rendered by the physician's assistant. Supervision shall require easy availability or in the immediate proximity of the licensed physician for consultation and direction of the actions of the physician's assistant.

5. All remunerations for the physician's assistant actions should be directed to the supervising physician for inpatient and outpatient services. The physician's assistant shall not receive direct remuneration for his services.

6. To assure that the physician assistant does not attempt procedures that are beyond his capabilities, there shall be a formalized list of procedures that a physician assistant may be permitted to render.

7. The physician's assistant shall be allowed to enter into a contractual arrangement ONLY with a licensed physician in good standing and with the approval of the State Board of Registration for the Healing Arts.

8. The physician's assistant shall not be allowed to establish an independent practice.

The Council discussed at length these recommendations, along with other suggestions regarding licensure, certification, etc. of PAs. Dr. Matthews indicated that he felt the best approach to this problem would be to seek a change in the Medical Practice Act to allow physicians to delegate authority for certain procedures rather than create another level of practitioner.

On motion, duly seconded, the Legislative Committee

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100 tablets
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**How Supplied:** Pale green, 300 mg. tablets in bottles of 100 and Single Unit Packages of 100 (intended for institutional use only).
Injection, 300 mg./2 ml., in single-dose vials in packages of 10.

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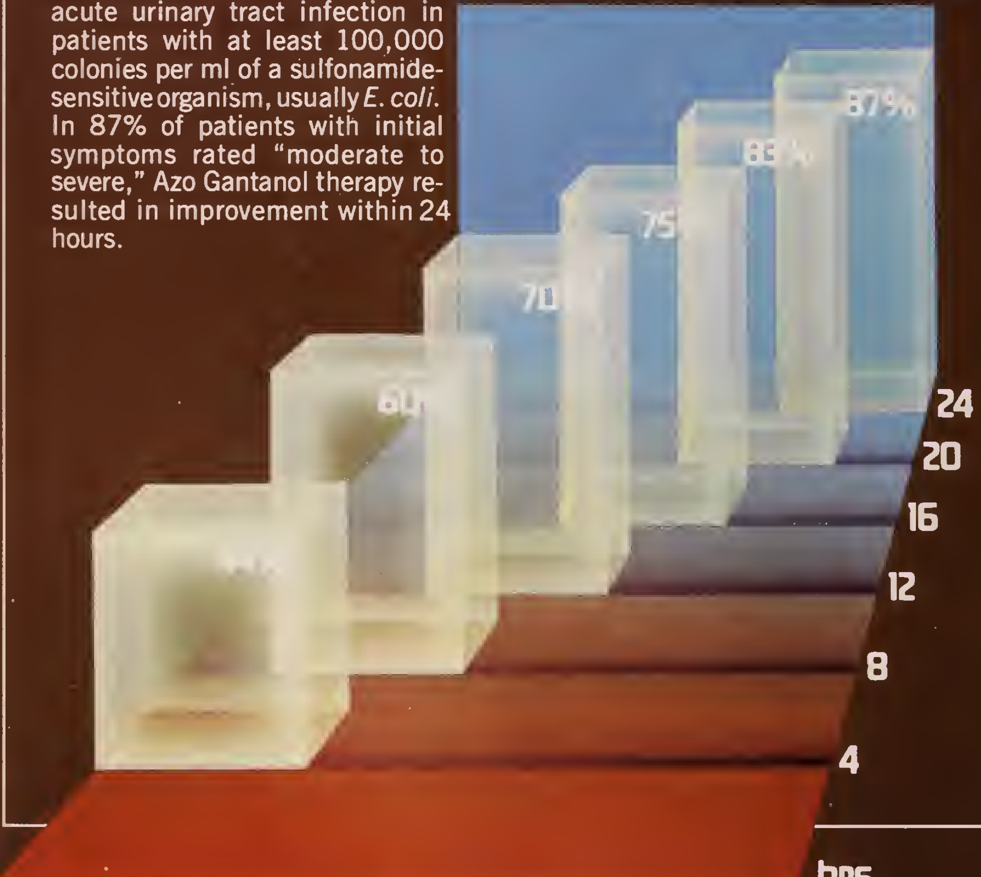
Important data on the pain of acute cystitis:

# In 87% of patients studied [303 of 349], Azo Gantanol® reduced pain and/or burning within 24 hours*

A controlled, multicenter study assessed the efficacy of Azo Gantanol in relieving pain and/or burning associated with acute urinary tract infection in patients with at least 100,000 colonies per ml of a sulfonamide-sensitive organism, usually *E. coli*. In 87% of patients with initial symptoms rated "moderate to severe," Azo Gantanol therapy resulted in improvement within 24 hours.



**Fast pain relief plus effective antibacterial action**

# Azo Gantanol®

Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.

for the pain
for the pathogens

**Before prescribing, please consult complete uct information, a summary of which follows:**

**Indications:** In adults, urinary tract infection complicated by pain (primarily pyelonephritis pyelitis and cystitis) due to susceptible organ (usually *E. coli, Klebsiella-Aerobacter, Staph coccus aureus, Proteus mirabilis*, and, less fr quently, *Proteus vulgaris*) in the absence of obstructive uropathy or foreign bodies. **Note: fully coordinate *in vitro* sulfonamide sensitiv tests with bacteriologic and clinical respons aminobenzoic acid to follow-up culture medi increasing frequency of resistant organisms li the usefulness of antibacterials including sul fonamides.** Measure sulfonamide blood level variations may occur; 20 mg/100 ml should maximum total level.

**Contraindications:** Children below age 12; su fonamide hypersensitivity; pregnancy at term during nursing period; because Azo Gantanol tains phenazopyridine hydrochloride it is con dicated in glomerulonephritis, severe hepatiti uremia, and pyelonephritis of pregnancy with disturbances.

**Warnings:** Safety during pregnancy not establ Deaths from hypersensitivity reactions, agran tosis, aplastic anemia and other blood dyscra have been reported and early clinical signs ( throat, fever, pallor, purpura or jaundice) ma dicate serious blood disorders. Frequent CBC urinalysis with microscopic examination are ommended during sulfonamide therapy.

**Precautions:** Use cautiously in patients with i paired renal or hepatic function, severe aller bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria stone formation.

**Adverse Reactions:** *Blood dyscrasias* (agranulocytosis, aplastic anemia, thrombocytopeni leukopenia, hemolytic anemia, purpura, hyp thrombinemia and methemoglobinemia); *alle reactions* (erythema multiforme, skin eruptio Stevens-Johnson syndrome, epidermal necrol urticaria, serum sickness, pruritus, exfoliativ dermatitis, anaphylactoid reactions, periorbi edema, conjunctival and scleral injection, ph sensitization, arthralgia and allergic myocardi *G.I. reactions* (nausea, emesis, abdominal pa hepatitis, diarrhea, anorexia, pancreatitis an stomatitis); *CNS reactions* (headache, periph neuritis, mental depression, convulsions, ata hallucinations, tinnitus, vertigo and insomnia *miscellaneous reactions* (drug fever, chills, t nephrosis with oliguria and anuria, periarteri nodosa and L. E. phenomenon). Due to certa chemical similarities with some goitrogens, d uretics (acetazolamide, thiazides) and oral h glycemic agents, sulfonamides have caused instances of goiter production, diuresis and h glycemia. Cross-sensitivity with these agents exist.

**Dosage:** Azo Gantanol is intended for the acu painful phase of urinary tract infections. *Usu adult dosage:* 2 Gm (4 tabs) initially, then 1 (2 tabs) B.I.D. for up to 3 days. If pain persis causes other than infection should be sought. After relief of pain has been obtained, contin treatment with Gantanol (sulfamethoxazole) be considered.

*NOTE:* Patients should be told that the oran dye (phenazopyridine HCl) will color the urine

**Supplied:** Tablets, red, film-coated, each con ing 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl—bottles of 100 and 50

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Time is the test of all things.

BRIEF SUMMARY

**Indications**: Oral potassium therapy for the prevention and treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. May be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

**Contraindications**: Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause.

**Precautions:** Potassium intoxication by oral administration rarely occurs in patients with normal kidney function, however, potassium supplements must be administered with caution, since the amount of the deficiency or daily dosage is not accurately known. Frequent checks of the clinical status of the patient, and periodic ECG and/or serum potassium levels should be made. High serum concentrations of potassium ion may cause death through cardiac depression, arrhythmias or arrest. This drug should be used with caution in the presence of cardiac disease.

In hypokalemic states, especially in patients on a low-salt diet, hypochloremic alkalosis is a possibility that may require chloride as well as potassium supplementation.

**Adverse Reactions:** Nausea, vomiting, diarrhea, and abdominal discomfort have been reported. The most severe adverse effect is hyperkalemia.

**Overdosage:** Potassium intoxication may result from overdosage of potassium or from therapeutic dosage in conditions stated under "Contraindications". Hyperkalemia, when detected, must be treated immediately because lethal levels can be reached in a few hours.

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was asked to develop language to be included in the Medical Practice Act which would permit physicians to delegate to assistants certain tasks rather than making this a distinct, ndependent level of practitioner.

On motion, duly seconded, the Council accepted the report of the Commission on Continuing Education and Health Manpower with commendation.

### REPORT OF COMMISSION ON INTERSPECIALTY MEDICINE

Dr. Thomas J. Cooper, Chairman of the Commission on nterspecialty Medicine, indicated that at the Interim Meeting of the House of Delegates held in November, 1977, the Commission on Interspecialty Medicine, through its component members, was asked to conduct a review of obsolete and/or ineffective procedures unique to each specialty. Several specialties are at varying stages of completing this survey and this review of obsolete procedures is in keeping with the time frame set by the Chairman. In the immediate future, the members of this Commission will receive a list of questionable procedures identified by Blue Shield. After this study has been completed, the Chairman will report this Commission's findings to the MSMA Council.—**Referred to Reference Committee on Medical Education and Public Welfare.**

### REPORT OF COMMISSION ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE AND GOVERNMENTAL RELATIONS

■ Mr. Kuebler, in the absence of Dr. Max Heeb, Chairman of the Commission, reported that the Commission recently had a telephone conference call to discuss several items. Among items discussed by the Commission were the following: the announcement of General American that HEW has delegated to Medicare carriers the responsibility for reporting $100,000 physicians under the Freedom of Information Act. The Commission recommends that the MSMA staff research the Freedom of Information Act toward the possibility of filing a new request for information concerning distribution of all HEW funds in Missouri and administrative costs of HEW programs.

On motion, duly seconded, the Council approved the recommendation of the Commission.

The Commission discussed the Medicaid program in Missouri and specifically the $20.6 million appropriation request made by the Governor and the proposed release of noncovered procedures. The Commission was informed that a bill has been introduced into the General Assembly which would provide a laboratory handling fee for physicians who must prepare specimens to be sent to an independent laboratory.

The Commission recommends that the following resolution on the Medicaid program be adopted:

> *Resolved*, that a Committee composed of MSMA members and staff be appointed to negotiate with the Division of Family Services to prevent further encroachment on the practice of Medicine and to forestall curtailment of services to the patient which result in additional deterioration of the Medicaid Program.

After discussion of the above resolution and on motion, duly seconded, the Council referred the resolution to the Ad Hoc Socioeconomic Committee.

The Commission also recommends that the following resolution be adopted for use in appropriation committee hearings:

> Whereas, 22.8 million dollars was appropriated in FY 1978 for physician services under the Medicaid program, and
> Whereas, the FY 1978 appropriation has not yet been shown to be adequate by economic analysis, and
> Whereas, the Governor has requested a sum of 20.6 million dollars for physician services in his budget message for FY 1979; therefore be it
> *Resolved*, that MSMA reminds the Governor and General Assembly that the only way to assure quality medical care for patients in the Medicaid program and to obtain a high rate of physician participation is to appropriate enough funds in HB 1009 to provide a reasonable fee for physician services.

On motion, duly seconded, the Council adopted the above resolution and recommended that the *Resolved* would be carried through a letter from the President to the Appropriations Committee.

The Commission examined the Preliminary Report on PSRO in Missouri. Several members indicated that they would like to have more information in regard to the cost of the program and the number of patients reviewed. The Commission recommends that an additional inquiry in late spring to elicit more useful information be made.

The Commission discussed the problem of overutilization of services and indicated that, perhaps, this subject may more appropriately be dealt with by the Ad Hoc Committee on Medical Affairs.

The Commission noted that as a result of its action and the action of the House of Delegates several years ago, it is not MSMA policy to support efforts toward the establishment of a single uniform procedure code for use on all insurance forms.

Mr. Kuebler reported that the Commission would submit a resolution to the House of Delegates calling for the adoption of the policy statement of the AMA on second opinions as MSMA policy.—**Referred to Reference Committee on Resolutions.**

### COMMITTEE ON VOLUNTARY HEALTH AGENCIES

■ Dr. William Allen, Chairman of the Committee, reported that the Committee on Voluntary Health Agencies has received several requests from organizations who would like to be listed in the Directory Issue of Missouri Medicine as Voluntary Health Organizations. The Chairman has in the past reviewed these requests and had denied listing when the organization did not appear to be functioning as a Voluntary Health Organization. To assist the Chairman and staff in dealing with such requests, the following definition was adopted which is from a 1963 AMA definition:

"A voluntary health agency is any nonprofit association organized on a national, state or local level, composed of lay and professional persons, dedicated to the prevention, alleviation and cure of a particular disease, disability or group of diseases and disabilities. It is supported by voluntary contributions primarily from the general public and expends its resources for education, research and service programs relevant to the disease and disabilities concerned."

The Committee will again request the Missouri Medicine Editor to print a list of Voluntary Health Organizations in Missouri for the Directory Issue.

The Committee received information that the United Way Organizations were requesting Congress to legislate a means of making contributions tax deductible whether or not the standard deduction is elected on the tax return.

May was chosen as the month for the next biennial meeting between the MSMA Committee on Voluntary Health Agencies and the representatives of the Voluntary Health Organizations.

Dr. Allen stated that the Council had previously discussed the meeting held by several Councilors to discuss the Area II Health Systems Plan. Dr. Allen indicated that the Governing Board of Area II had met to discuss the recommendations for changes made by the Councilors and the Governing Board made several distinct changes in the plan. Dr. Allen indicated that he felt that the time and effort of the Councilors spent in discussing the Plan was worthwhile and had good results.—**Referred to Reference Committee on Medical Education and Public Welfare.**

### REPORT OF MISSOURI STATE MEDICAL FOUNDATION

■ Mr. Cooper, in the absence of Mr. Ellison, reported that during the 1977 Annual Session, approval was given for the continuation of the annual assessment of $10 per year for active members for 1978, 1979 and 1980. Mr. Cooper indicated that since the inception of the Foundation in 1960, the Foundation has made 1,598 loans to 571 medical students for a total of $981,960. In 1977, the Foundation had 157 applications with a total of $101,420 borrowed by students. During 1977, an increased number of physicians have repaid their loan in full.—**Referred to Reference Committee on Reports of Officers.**

### REPORT OF PLANNING COMMITTEE

■ In the absence of the Chairman, Dr. Paul Rother, Mr. Swarens gave the report on the Committee on Planning. The House of Delegates referred three resolutions to the Committee from the Interim Session:

#### Resolution #2—Districts for AMA Delegates

Discussion pointed out that AMA Delegates from Missouri should represent all AMA members in the MSMA and should be elected at large.

The matter of allowing only those Delegates to the MSMA who are also AMA members vote was discussed, but it was felt that it is too difficult to establish exactly which Delegates are AMA members and, most importantly, the AMA members represented by their MSMA Delegate should have a voice in the MSMA House. Therefore, the Committee:

*Recommends* that the election of Delegates to the AMA be carried out by written ballot with the votes weighted on a percentage basis depending on the percent of AMA membership in the Component Society represented by the MSMA Delegate voting.

#### Resolution #3—Council Redistricting

Discussion centered on several proposed maps, including one submitted by Dr. Charles P. McGinty, a member of the Committee who was unable to attend. With the physician population centers currently present in Missouri, the Committee felt it would be impossible to provide contiguous and manageable Council Districts by reshaping the present ten districts. The need for geographical representation was noted. Some discussion was held on providing additional councilors to the greater populated districts, but it was felt that additions to the Council would only serve to make the body unwieldy. Therefore, the Committee:

*Recommends* that Resolution #3 regarding Redistricting of the Council not be carried out but, rather, the goal of equitable representation in the MSMA can better be achieved in the House of Delegates. In seeking this goal, it should be stressed that no additional delegates to the House are needed, but the present number of delegates should more equitably reflect the population areas of MSMA membership. Therefore, the Committee also:

*Recommends* that the Council and the House of Delegates again consider the recommendation from this Committee (September, 1977) which would eliminate delegate representation from a Missouri county where only one member is in practice. We would again submit the following:

*Resolved*, That Chapter III, Section 2, of the Bylaws of the Missouri State Medical Association be amended to read:

Section 2. Each component medical society shall be entitled to send each year, one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31 of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having *two* or more member physicians practicing in the county, of which the component society is composed; however, such delegates from multicounty component societies must practice or reside in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies. All Past Presidents of the Association, the Speaker and Vice Speaker shall serve as Delegates-at-Large.

After a brief discussion, the Council moved, seconded and agreed to refer these two items to the House of Delegates for its action.

#### Resolution #6—Establish Committee on Districting

The Committee on Planning is of the opinion that the problem of representation lies in the House, not the Council. The Committee therefore:

*Recommends* the establishment of a Committee on Reapportionment to be charged with the responsibility of developing a formula which would provide for equitable membership representation in the MSMA House of Delegates.

The Council discussed this recommendation and it was felt that the Committee on Planning should be charged with this responsibility. On motion, duly seconded, it was agreed that the Planning Committee be charged with the responsibility of developing a formula on reapportionment to be reviewed annually.

### OTHER BUSINESS

The Committee was appraised of the proposed consolidation of the St. Louis Medical Society and the St. Louis County Medical Society. This matter will be brought before the Council by representatives of the involved societies.

Also, the relationship and equality of power between the Council and the House of Delegates was considered. Article V of the Constitution states, "The Council shall be the *executive body of this Association* when the House of Delegates is not in session." On the other hand, Chapter VI, Section 3 of the Bylaws states, "The *Council* shall be the *executive body of the House of Delegates* and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and Bylaws."

Your Committee feels there is some conflict in these statements. Since Chapter VI, Section 2 of the Bylaws prohibits a councilor from serving as a delegate to the House and provides that a councilor cannot vote in the House, it is difficult to understand how the Council can be considered an executive body of the House of Delegates. Therefore, the Committee:

*Recommends* that councilors shall be elected by their local societies to serve as Delegates to the House. They would not be additional Delegates, but rather, would take one of the Delegate positions alloted to that society. Should this recommendation not be accepted, your Committee:

*Recommends* that the Constitution and Bylaws of the MSMA redefine the Council as the executive body of the Association, not the executive body of the House of Delegates.

On motion, duly seconded, the Council approved the recommendation that the Constitution and Bylaws of the MSMA redefine the Council as the executive body of the Association, not the executive body of the House of Delegates.—**Referred to Reference Committee on Constitution and Bylaws.**

### REMARKS OF THE SPEAKER OF THE MSMA HOUSE OF DELEGATES

■ Dr. Burford indicated to the councilors that within the next few weeks, staff will be sending a list of delegates to each councilor and asked that they make recommendations for appointments to Reference Committees indicating their field of interest. Deadline for inclusion of resolutions in the

Handbook is February 27, 1978.—**Referred to Reference Committee on Reports of Officers.**

### Reports of the Deans

■ Dean Noback indicated that he would again be in contact with the physicians in both Northwest and Southwest Missouri this fall to make arrangements for medical students to spend some time with the physicians in these areas.

He reported that a group of students and faculty will be going to Israel in May.

They will be graduating approximately 60 students in May.

Dean Lobeck, University of Missouri-Columbia, reported that they have received 900 applications for 110 positions for the fall term. The school has a special interest in the family practice bill which is to be heard Wednesday night. Under the federal Health Manpower Act, MU-Columbia has selected five foreign medical students to enter medical school.

Dr. Stoneman, assistant dean of St. Louis University School of Medicine, reported that a new chief of the OB-GYN Department has been selected and commended Dr. Ritter for his invaluable help as acting chairman.

He reported that the mayor has directed the Department of Health and Hospitals to consolidate the staffs of Homer G. Phillips Hospital and St. Louis City Hospital.

St. Louis University has developed an alumni guarantee program in which the alumni is asked to cover any defaults made on student loans which have been arranged through three large St. Louis downtown banks. The line of credit is ten times the amount of the guarantee existing in the pool.

St. Louis University is required to accept from five to eight foreign medical students under the federal Health Manpower Act.

Dr. Stoneman offered the University's assistance in any way in regard to the AMA Annual Session to be held in St. Louis in June.

### COST CONTAINMENT-EFFECTIVENESS PROGRAM

Dr. Bradley discussed a proposed Cost Containment Program offered by the Missouri Hospital Association. The aim of the project is to establish a program of voluntary cost containment along guidelines suggested by the AMA, American Hospital Association and the Federation of American Hospitals.

In discussing the structure of a State Cost Containment Committee, Dr. Bradley moved that the MSMA suggests that two more members of the MSMA be added to this committee, plus one member from the Missouri Nurses Association. Motion was seconded and carried. Further motion was made, seconded and carried that all hospitals, including government hospitals, be studied.

Dr. Bradley indicated that he would so notify the Missouri Hospital Association of our suggested changes.—**Referred to Reference Committee on Medical Education and Public Welfare.**

### LEGISLATIVE REPORT

■ Dr. Matthews gave the following Legislative Report:

An Election Year flood of bills have been introduced into the Second Session of the 79th General Assembly. Of the more than 1,300 bills introduced, the Legislative Committee is following 50 Senate bills and 73 House bills.

To add to the load, a mini-revolt by Freshman Democrats in the Senate resulted in the naming of nine additional committees. Therefore, where we once heard the majority of health-related bills in one Senate committee, those same bills are now split between three Senate committees. This has had the effect of forcing the MSMA to double-up on hearings and provide testimony before several committees on the same night. Also, it has seemed to speed up the process of hearing bills and reporting them to the floor.

*(Left to right)* **President-Elect John Martin, Immediate Past-President Max S. Franklin and Council Chairman Andrew McCanse await the opening of the First Session.**

Following is a summary of legislative action to date:

1. *CERTIFICATE-OF-NEED—SB 507,* a "bare-bones" C-O-N bill has been reported Do Pass. The bill exempts physician offices and does not contain a separate osteopath section. *HB 1413,* another bill to regulate hospital costs, also is out of committee.
2. *CHIROPRACTORS—SB 699,* which allows chiropractors to use "adjunctive therapy" was voted out of committee Do Pass. Dr. Matthews urged the Councilors to have physicians in their area contact their Senators and Representatives regarding our opposition to this bill. *SB 705,* the so-called "Fair Practices Act," has been reported Do Pass. This calls for payment to chiropractors by the Blues. A bill mandating Medicaid payment to chiropractors is still in committee.
3. *OPTOMETRY—SB 518,* which would permit optometrists to use topically-applied drugs, will be heard by committee this coming Wednesday. Two bills which would provide an initial avenue for the establishment of a School of Optometry in St. Louis have been reported Do Pass. The Administration and legislative leadership are pushing these two bills.
4. *DEFINITION OF DEATH*—A Substitute for *HB 1020* has been introduced and the sponsor has asked for the MSMA position. This is a compromise and the only bill which could be passed, if any can.
5. *GENERIC SUBSTITUTION*—Again, the Administration and leadership are pushing for a generic substitution bill. *HB 933* has been Perfected and *SB 545* reported Do Pass. We should consider if the bills should be amended (if possible) to include provisions that the patient must be informed that a drug is being substituted and that the name of the generic manufacturer be included on the prescription label.
6. *BOARD OF HEALING ARTS*—Two bills which would add a "lay member" to the Board, *HB 1075* and *SB 672,* have been reported Do Pass. *SB 662,* which changes the statutes to comply with the FLEX, also is out of committee. So too is *SB 624,* which applies to physician advertising.
7. *MEDICAID*—The State has a $3 billion proposed budget of which $20.6 million is stipulated for physicians fees under Medicaid. When the hearing on the entire state budget was held for the general public,

Dr. Peterson was the only citizen to show up to testify. He asked the committee to override the Governor's proposed decrease in physician appropriations from $22.8 million. The Administration feels due to new recipient qualifications, there will be fewer on the Medicaid rolls.

*HB 1142,* which calls for an Open Formulary and contains a "co-payment" clause, has been reported Do Pass as has *SB 610,* which would allow "providers" to appeal Medicaid decisions. *HB 1688* (Payment for Lab Specimen Collection) has not been heard.

8. *LICENSURE*—Bills for licensure of allied health personnel continue to increase. *SB 593* (Physical Therapy Assistants) made it to the floor, but was defeated on a 16-14 vote. Licensure bills heard but still in committee include *HB 1638* (Radiologic Techs), *HB 1468* (Social Workers) and *HB 1374* (Athletic Trainers). Not yet heard are *SB 535, HB 970,* and *HB 1653,* all Physician's Assistants bills, *SB 938* (Cardiology Techs), *HB 1630* (Mental Health Techs) and *HB 1506* (Optician Licensing).
9. *EDUCATION*—Two bills seeking state loans to medical students, *HB 884* and *SB 805,* are progressing. The bill calling for state funding of Family Practice Residencies, *HB 1044,* will be heard this coming Wednesday.
10. *MALPRACTICE*—It is becoming an old story, but our malpractice bills are attracting little interest. The bills are *SB 533* (Collateral Source), *SB 819* (Structured Awards), *HB 1144* (Expert Witnesses). The "Good Samaritan" bill, *HB 1280,* has been heard and has many sponsors. If it is any consolation, the attorneys are having no luck with their malpractice protection bills and a special consortium of powerful business interests is getting almost nowhere with their package of product liability bills. Also, a review of other states shows few new malpractice bills being passed.
11. *MENTAL HEALTH*—Bills on commitment policies and personnel to direct facilities have been heard and the Missouri Psychiatric Association presented testimony. Most of the MPA amendments were accepted and the bills are on the Perfection Calendar.
12. *OTHER ISSUES—Laetrile:* The testimony on both sides was emotion-packed, but the opponents won the first round as *HBs 1295* and *997* were held in committee. The bills, which would allow the manufacture, sale and use of laetrile, were held on a vote of 6-6 with 2 abstaining and one absent.

    *SIDS: HB 1173* and *SB 765,* which provide for state-financed autopsies of infants if the parent does not object, have been heard.

On motion, duly seconded, the report of the Legislative Committee was accepted.—**Referred to Reference Committee on Miscellaneous Affairs.**

### FUTURE COUNCIL MEETINGS

■ The next Council Meeting will be held at the Crown Center Hotel, Kansas City, at 3 PM on Wednesday, April 12.

The June Council Meeting will be held at the Holiday Inn, Lake of the Ozarks on June 2-3.—**Referred to Reference Committee on Reports of Officers.**

### MOMEDICO

■ Dr. McAlhany presented the Council with a status report on the formation of MOMEDICO. He explained that the Missouri Commissioner of Securities has approved the offering document in connection with the subordinated notes to be issued by MSMA and that the Missouri Medical Insurance Company has been formed as a corporation and should be authorized to operate as an insurance company by March 1, 1978.

He informed the Council that it was necessary to obtain authorization from them to execute the necessary credit agreement with Boatmen's National Bank of St. Louis in order to accomplish the funding of the insurance company.

On motion, duly seconded and unanimously passed, it was

*Resolved,* That the "credit agreement" between Missouri State Medical Association and Boatmen's National Bank of St. Louis, a copy of which shall be attached to the minutes of this meeting, shall be and the same is hereby approved.

On motion, duly seconded, it also was unanimously passed that the MSMA should proceed with the sale of the subordinated notes which have been approved by the Commissioner of Securities of the State of Missouri.—**Referred to Reference Committee on Constitution and Bylaws.**

### EXECUTIVE SESSION

■ During the Executive Session, the Council discussed a recent request concerning the funding of delegates to the American Medical Student Association meeting. The Chairman of the Budget and Finance Committee stated that there are no funds available at this time for this purpose. It was the feeling of those present that, perhaps, in the future an effort could be made to establish a budget item for this project. It was proposed that a method of conjoint funding with the four medical schools in Missouri could possibly be adopted for 1979.—**Referred to Reference Committee on Reports of Officers.**

## Supplementary Council Report

Dr. McCanse presented a supplementary report on the Council meeting held on Wednesday, April 12, 1978 at Crown Center Hotel. He reported as follows:

"The MSMA Council met at the Crown Center Hotel in Kansas City on April 12, 1978 with a majority present and Chairman Andrew McCanse presiding. On motion, duly seconded, the minutes of the February 4, 1978 meeting were approved.

"Mr. Royal O. Cooper, executive secretary, reported that plans were proceeding on the remodeling of the fourth floor of MSMA Headquarters Building. Mr. Cooper indicated that the headquarters hotel for the AMA meeting in June in St. Louis will house the official family, which is delegates, alternates and state society officers. Those present were asked to contact the MSMA office if they desired reservations for the meeting. These arrangements will be made through the AMA Housing Office.

"President McAlhany asked all councilors to submit a name of a member from their respective districts to serve on the Nominating Committee.

**(The vice-speaker referred this portion of the report to Reference Committee on Reports of Officers.)**

"President McAlhany asked for Council approval of a courtesy resolution which will be presented to Dr. Joseph V. Finnegan, retiring editor of Missouri Medicine.

"On motion, duly seconded, the resolution was adopted for presentation to the House. This resolution will be read on the floor of the House on Sunday morning.

**(The vice-speaker requested that the resolution be read.)**

### Courtesy Resolution—Dr. Joseph V. Finnegan, Editor

Whereas, Joseph V. Finnegan, M.D., has served this Association and the medical profession with honor and distinction as Editor of Missouri Medicine since January, 1972, and

Whereas, He has given generously of his time and knowledge for almost 17 years in guiding the Association's journal and maintaining its status of high quality and excellence, and

Whereas, through his interest and good judgment, he has provided a reliable and respected forum from the voluntary reporting and publication of the scientific research and medical experiences of so many other dedicated Missouri physicians, and

Whereas, Dr. Finnegan now deems it necessary to devote his efforts to other responsibilities, therefore

*Be It Resolved*, That the House of Delegates of the Missouri State Medical Association at this 120th Annual Session in Kansas City formally expresses its appreciation to Dr. Joseph Finnegan for his dedicated and unselfish service and be it further

*Resolved*, That the House extends to him the best wishes of the members of this Association for health and good fortune in the years to come.

Signed by Howard J. McAlhany, M.D., President, Missouri State Medical Association.

**(The motion to adopt the resolution** was **seconded and approved unanimously.)**

"Dr. McAlhany indicated that Dr. Claude Cooper, Ninth District Councilor, is ill and will be unable to attend the meeting and suggested that a card be sent to him from the Council. Dr. Wilfred E. Wooldridge, Springfield, was introduced as the new editor of Missouri Medicine. Dr. Wooldridge then made the following recommendations for appointments to replace several present members of the Publication Committee and Editorial Board:

"Drs. Carl Kardinal, Michael Perry, Philip C. Anderson, Ernest Lorenc and James Clawson.

"On motion, duly seconded, the Council accepted Dr. Wooldridge's recommendations.

"Mrs. W. Jack Stelmach, MSMA Auxiliary president, reported that the current membership is 1,581. Mrs. Stelmach said that this year, the Auxiliary raised $21,000 for scholarships—$12,000 for the AMA-ERF and $1,700 for the Missouri State Medical Foundation. Mrs. Stelmach introduced Mrs. A. J. Campbell, Sedalia, the Auxiliary President-Elect.

"Dr. Burford, Speaker of the MSMA House, called the Council's attention to procedures of the House as printed in the Delegates' Handbook and reminded the delegates of the procedure regarding submission of late resolutions.

**(The vice-speaker referred this portion of the report to the Reference Committee on Reports of Officers.)**

"Dr. McCanse called the Council's attention to the report of the Commission on Medical-Legal Affairs, which is included in the Delegates' Handbook and which deals mainly with the problem surrounding the Professional Liability Review Board.

"During the discussion, it was pointed out that there was a possible lack of preparedness on the part of the attorneys involved in the cases presented to the Board. It was suggested that the Commission on Medical-Legal Affairs look into this problem. The Council accepted the report of the Commission on Medical-Legal Affairs.

"Dr. I. H. Clark brought the Council up to date on the activities of MOMEDICO. After five weeks in business, 40 policies have been written insuring 100 physicians, for premiums of $350,000 plus. One hundred and sixty-five have requested applications. The Board is delighted with the progress of the program.

**(The vice-speaker referred this portion of the report to the Reference Committee on Constitution and Bylaws.)**

"Dr. William Allen reported that in 1962, a study was conducted to determine the prevalence rate of rheumatic fever in Missouri. As a result of the findings, a secondary prevention program was established. In recent years, there has been marked decrease in the number of individuals who physicians have placed on that program. This may be due to a possible decrease in the number of people who have rheumatic fever. However, it is felt that another study should be done to determine the prevalence rate. He asked for Council approval to conduct this second study.

"On motion, duly seconded, the Council agreed to cooperate in this rheumatic fever study.

"Chairman McCanse introduced Dr. Robert Hunter, Chairman of the AMA Board of Trustees, and welcomed him to our state.

"Dr. Bradley brought the Council up to date on the meetings held in regard to the report of the National Commission on the Cost of Medical Care. Dr. Bradley indicated that it was his feeling that there are quite a few misunderstandings about this report in Missouri. However, the MSMA has taken steps to work with the Missouri Hospital Association to form a cost effectiveness and cost containment committee in Missouri. He indicated that meetings had been held between the MSMA, Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Hospital Association and they have come up with several ideas on how to proceed with the work of this committee.

"Dr. Bradley asked for Council approval of the following resolution:

### Resolution on National Commission on Cost of Medical Care

*Resolved*, That the American Medical Association be commended for its leadership in creating a National Commission on the Cost of Medical Care. The content of their report will permit the AMA House of Delegates and the members of entire medical profession to review, respond to and thoroughly discuss each of the 48 recommendations prior to determination of AMA policy on the many facets of health and medical cost problems facing the American medical profession and the patients it serves, and be it further

*Resolved*, That the Missouri State Medical Association seeks to correct misunderstandings about the report, both by the public and members of the medical profession, such as, (1) that it seems to support government control of hospital care facilities and of the medical profession through already existing federally controlled statutory mechanisms such as HMO and HSAs and (2) that it seems to promote and support the nationalization of medical and health care through federal control of hospitals, doctors and insurance companies; and be it further

*Resolved*, That the Missouri State Medical Association and American Medical Association document and publicize other causes of rising health care costs, namely,

(1) Government overspending and resultant inflation;
(2) Governmental overregulation and interference;
(3) Increase demand and expectation, including (a) Irresponsible pressures for first dollar coverage; (b) Governmental intervention in the marketplace;
(4) Increase cost of medical liability insurance;
(5) Increase costs of all services and products which physicians and hospitals must purchase on the open market; and be it further

*Resolved*, That the Missouri State Medical Association conveys the foregoing sentiments to the AMA House of Delegates through its delegation to the AMA by resolutions to be introduced at the June, 1978 AMA Convention to be held in St. Louis, Missouri.

"Dr. McCanse indicated that the general tone is that we support the efforts of the National Commission on the Cost of Medical Care and that there are some parts that need clarification and correction both for physicians and the public.

"On motion, duly seconded, the Council approved the above resolution. Dr. McAlhany commended Dr. Bradley for the excellent work he has done on this program as part of the 'Action Plan.'

**(The vice-speaker referred this portion of the report to the Reference Committee on Medical Education and Public Welfare.)**

"Dr. Bradley reported that in February, 80% of the voting membership of the St. Louis Medical Society and St. Louis County Medical Society voted to consolidate into one metropolitan medical society.

"Dr. McCanse called the Council's attention to the survey of councilors which he conducted last summer on the objectives and goals of the MSMA. Information from the survey was distributed to the councilors requesting their indication of the main strengths and weaknesses of the Association. He pointed out that several of the problems brought out in this survey are currently being studied and acted upon under President McAlhany's 'Action Plan.'

(The vice-speaker referred this portion of the report to the Reference Committee on Reports of Officers.)

"Dr. John Matthews, chairman of the Committee on Legislative Affairs, brought the Council up to date on the current status of legislation that the MSMA is following in the current general assembly.

"Dr. McCanse commended Dr. Matthews on his usual good job as Chairman of the MSMA Committee on Legislative Affairs.

"Dr. Martin urged all those present to become sustaining members of MMPAC.

"On motion by Dr. Hetlage, duly seconded, the Council commended Drs. McAlhany, McCanse and Matthews for a most productive year."

(This portion of the report was referred to the Reference Commitee on Miscellaneous Affairs.)

## NOMINATING COMMITTEE

Dr. McAlhany named the following members to the Committee on Nominations:

Dr. Gary A. Dyer, *First District;* Dr. Carl Roos, *Second District*; Dr. J. Otto Lottes, *Third District;* Dr. J. L. Meyer, *Fourth District;* Dr. Robert H. Tanner, *Fifth District;* Dr. Rolla B. Wray, *Sixth District;* Dr. Ronald A. Youmans, *Seventh District;* Dr. David L. Spalding, *Eighth District*, Chairman; Dr. W. Thomas Morgan, *Ninth District;* and Dr. George H. Ladyman, *Tenth District.*

At this time, Dr. McAlhany presented checks for the American Medical Association-Educational and Research Foundation (AMA-ERF) Grants to the representatives of the four medical schools in Missouri. He explained that the grants represent Missouri's portion of more than $1 million which will be awarded to medical schools throughout the nation this year. The grants are made possible by contributions to the AMA-ERF by physicians, medical societies, medical society auxiliaries and friends of medicine. He pointed out that the medical society auxiliaries are responsible for raising more than half of the total of contributions and stated that they deserve special appreciation.

The amount of the AMA-ERF grants presented to the medical schools and their representatives are as follows: $10,168, Washington University School of Medicine represented by Dr. J. M. Stokes in the absence of Dean M. Kenton King; $6,319, University of Missouri-Columbia School of Medicine represented by Associate Dean Jerry A. Royer; $15,342, St. Louis University School of Medicine represented by Dr. George E. Thoma; $2,709, University of Missouri-Kansas City School of Medicine represented by Dean Richardson K. Noback.

At this time, the Vice-Speaker asked members of the House of Delegates and all others present to pay tribute to the 50 members who had died since the 1977 Annual Session by standing for a moment of silence in their memory and as indication of approval of the following resolution which she read:

### Courtesy Resolution on Deceased Members

Whereas, There have been 50 deaths among our members since the 1977 Annual Session, and

Whereas, Each of these members is missed as an individual as well as for his contributions to the practice of medicine and to the Missouri State Medical Association, and

Whereas, The loss of each member is felt by all members, as well as his loved ones and close associates and the patients he has served with dedication, and

Whereas, Condolences in the form of the Memoriam Perpetuam have been sent to the immediate family of each deceased member, therefore, be it

*Resolved*, That the House of Delegates now pay personal tribute by standing for a moment of silence in memory of each of the 50 members we have lost and whose names will be recorded in the minutes of this Annual Session.

### Members Deceased Since the 1977 Annual Session

- Turner, Clarence M., St. Louis
- Gruenfeld, Gerhard E., St. Louis
- Aquino, Philip J., Caruthersville
- Kimberlin, Herbert C., Trenton
- Wayland, Thomas A., Linn Creek
- Post, Winfred L., Joplin
- Brother, George M., Clearwater, Fla.
- Burford, Thomas H., St. Louis
- Goldenson, Max J., St. Louis
- Weis, Matthew W., Villa Ridge
- Stewart, John W., Ewing, Ill.
- Coates, Thomas A., St. Louis
- Tygett, Glen J., Cape Girardeau
- Crouch, F. Richard, Farmington
- Alvis, Bennett Y., St. Louis
- Wheeler, John H., Kansas City
- Diekroeger, Manuel L., Boonville
- Stevens, Robert W., University City
- Gildea, Edwin F., St. Louis
- Kelley, Robert W., St. Louis
- Farnsworth, Jesse J., Kansas City
- Chambers, James Q., Jr., Kansas City
- Herrman, George V., Sunrise Beach
- Carr, A. D., St. Louis
- Davis, Edgar W., St. Louis
- Ellison, Leroy E., Warren, Ar.
- Mooney, Marcel L., Kansas City
- Nester, Charles A., St. Louis
- Campbell, Cecil S., St. Louis
- Struessel, Kenneth F., Columbia
- McVay, James R., Kansas City
- Koch, Robert E., Clayton
- Rigney, Levi M., Springfield
- Flavan, David B., St. Louis
- Stutsman, Albert C., Clayton
- Hampton, Oscar P., Jr., St. Louis
- Webb, Paul B., Sr., St. Louis
- McGinnis, Byron J., St. Louis
- Kleinschmidt, Clinton, St. Louis
- Dwyer, Thomas L., Mexico
- Taylor, Herbert B., St. Louis
- Gurnee, Landon, Jefferson City
- Barnett, Charles H., Bolivar
- McPheeters, James W., Sr., Poplar Bluff
- Tuthill, Herbert, Barrington, Ill.
- Watson, Ethel, Independence
- Wilson, Loys C., Kennett
- Bauer, Otto F., Granite City, Ill.
- Olmsted, William H., St. Louis
- Vollmar, Clarence, Sun City, Ariz.

At this time, Dr. Burford, speaker, assumed the chair.

## Unfinished Business

The speaker called for unfinished business.

The speaker then asked the delegates to consider an amendment to the Constitution and Bylaws which had been held over from the 119th Annual Session of the MSMA in 1977.

The proposed amendment to be considered is as follows:

### ARTICLE III—MEMBERSHIP

Membership in this Association shall be limited to and include all members in good standing in both the component societies which hold charters from this organization and the American Medical Association.

*(The speaker called for a standing vote. The amendment did not receive a two-thirds majority of the votes and was not adopted.)*

There being no additional unfinished business, the speaker called for new business.

## Introduction of New Business

The speaker noted that since Resolutions #1 through #12 had been submitted in time for inclusion in the Delegates' Handbook, their introduction from the floor is not required. These resolutions are as follows:

### Resolution #1—Voting for AMA Delegates

(Introduced by Max S. Franklin, M.D., MSMA Immediate Past-President)

Whereas, At the last two annual conventions of the MSMA, the majority of delegates voted for unified membership of Missouri doctors with the American Medical Association, although not the two-thirds majority necessary for passage, and

Whereas, This would seem to indicate that the majority of the delegates are members of the American Medical Association, and

Whereas, It would also indicate that those delegates of the MSMA who are not members of the AMA, and it is to be assumed are not interested in the AMA, therefore be it

Resolved, That only delegates of the MSMA who are members of the AMA be allowed to vote for delegates from Missouri to the American Medical Association.

**(Referred to Reference Committee on Constitution and Bylaws.)**

### Resolution #2—Computerized Donor Registry

(Introduced by Louis P. Hetlage, M.D.)

Whereas, The techniques of transplantation surgery have been sufficiently developed to permit the transplantation of fresh cadaver organs to living patients with a reasonable degree of success and,

Whereas, These procedures are increasingly successful in preserving life or improving the quality of life of the recipients of such organs, and

Whereas, The major limitation imposed upon these procedures is the availability of rapidly and readily identifiable donors for the prompt harvesting of fresh organs and,

Whereas, A rapid means of computerized identification of such volunteer donors has been developed in the St. Louis area, and

Whereas, The state and nationwide propagation of such a donor registry would be enormously beneficial to the population as a whole, and

Whereas, This program has received the endorsement of St. Louis Medical Society, St. Louis County Medical Society, St. Charles-Lincoln Medical Society and works with the cooperation of the Kidney Foundation, The Society for the Blind, Lions Clubs of Districts 26-A-1-2, Fire Fighters, St. Louis Bi-State Chapter, American Red Cross, Regional Dialysis and Transplant Association, American Diabetes Association Affiliate, Inc., St. Louis Heart Association, and Medicalert Foundation International, therefore be it

*Resolved*, That the House of Delegates of the Missouri State Medical Association endorses the concept of state and nationwide computerized donor registration and encourages the extension of the present Lifeline System to a statewide and nationwide basis, and be it further

*Resolved*, That a copy of this resolution be supplied to the Missouri Delegation to the House of Delegates Meeting of the American Medical Association in St. Louis for introduction and consideration by that body.

**(Referred to the Reference Committee on Medical Education and Public Welfare.)**

### Resolution #3—Appropriation of a Reasonable Sum for Physicians' Services

(Introduced by the Commission on Medical Economics, Third Party Medicine and Governmental Relations—Max A. Heeb, M.D., Chairman)

Whereas, The advisability of any specific therapy, medical or surgical, can at times be a matter of professional opinion, and

Whereas, Physicians have historically recognized the value of consultation, and

Whereas, Physicians have historically recognized the right of a patient or physician to seek consultation when deemed of value, and

Whereas, Third party payors, including state and federal governments, are beginning to seek mandatory second opinions for all elective surgical procedures, therefore be it

*Resolved*, That the Missouri State Medical Association reaffirms the right of a patient or physician to seek consultation freely with any consultant of his or her choice.

OPPOSE the concept of mandatory consultation required by third party payors.

OPPOSE the concept of panels of consultants open or closed.

SUPPORT the concept that when second opinions are mandated by third party payors that the third party payor is responsible for the consultant fee and the choice of consulant is the responsibility of the patient.

OPPOSE the concept that the second opinion is more valid than the first.

**(Referred to Reference Committee on Resolutions.)**

### Resolution #4—Method of Determining Payment of Hospital Bills by Third Parties

(Introduced by Ozarks Medical Society)

Whereas, There is presently a financial crisis in American Medical Care, the cost of hospitalization rapidly exceeding the ability of anyone to pay; and

Whereas, The federal government is approaching this problem with curtailment of facilities and services, forming new bureaucracies to monitor provisions of these services; and

Whereas, Presently with a cost plus method of payment, there is no incentive to reduce cost, prevent duplication or utilize older but adequate facilities and

Whereas, The bureaucratic decisions on who will get what facilities will be political and very likely the centers of voting population will be favored over the rural areas; and

Whereas, A fixed fee for service competitively figured as opposed to cost plus payment would automatically prevent duplication, wastage, cosmetic obsolescence of adequate facilities and alleviate the need for new overseeing bureaucracies; therefore be it

*Resolved*, That the Missouri State Medical Association recommends that all hospitals be paid the same for the same services and that this payment be low enough to prevent wastage, duplication and to insure competitive management.

**(Referred to Reference Committee on Medical Education and Public Welfare.)**

### Resolution #5—AMA Delegates—Weighted Vote[*]

(Introduced by the MSMA Committee on Planning—Paul Rother, M.D., Chairman)

Whereas, For many years the delegates of this House have expressed concern about non-AMA members being allowed to vote for our delegates to the AMA, and

Whereas, To deny MSMA delegates who are not members of the AMA the right to vote on AMA delegates, in effect, disenfranchises that MSMA delegate's constituents back home who are AMA members, and

Whereas, Your Committee on Planning is charged with developing new concepts which carry out the desires of the Association, therefore be it

*Resolved*, That the election of Delegates to the AMA be carried out by written ballot with the votes weighted on a percentage basis depending on the percent of AMA membership in the Component Society represented by the MSMA delegate voting.

**(Referred to Reference Committee on Constitution and Bylaws.)**

### Resolution #6—Membership Representation

(Introduced by the MSMA Committee on Planning—Paul Rother, M.D., Chairman)

Whereas, At the 1977 Interim Session, this House of Delegates began the process of providing equitable membership representation in the House to reflect the geographical location of our MSMA members by allotting additional delegates to larger component societies, and

Whereas, Even with those additions, the larger component societies still do not have membership in the House of Delegates proportionate to their membership in the MSMA, and

Whereas, To further increase the size of the House by allotting

[*] ADDENDUM TO RESOLUTION #5:

*Example of Proposal for Weighted AMA Delegate Voting*

| *Society* | *Delegates* | *MSMA Members* | *AMA Members* | *Per Cent* | *Weighted Vote* | *Candidate X* | *Candidate Y* |
|---|---|---|---|---|---|---|---|
| Andrew | 1 | 3 | 3 | 100 | 1.00 | 1 × 1 = 1 | |
| Clay | 6 | 110 | 93 | 85 | .85 | | 6 × .85 = 5.10 |
| Platte | 1 | 4 | 2 | 50 | .50 | | 1 × .50 = .50 |
| Jackson | 51 | 1,051 | 852 | 81 | .81 | 27 × .81 = 21.87 | 24 × .81 = 19.44 |
| Greene | 14 | 252 | 179 | 71 | .71 | 3 × .71 = 2.13 | 11 × .71 = 7.81 |
| St. Louis | 86 | 1,705 | 1,245 | 73 | .73 | 66 × .73 = 48.18 | 20 × .73 = 14.60 |
| | | | | | Total Votes | 72.18 | 47.45 |

more delegates to large societies is not practical or wise because the House would become unwieldy, and

Whereas, Current MSMA Bylaws provide that a MSMA member can represent himself as a delegate even if he is the only MSMA member practicing or residing in a county which is part of a multi-county component society, therefore be it

*Resolved*, That Chapter III, Section 2, of the Bylaws of the Missouri State Medical Association be amended to read:

> Section 2. Each component medical society shall be entitled to send each year, one delegate or one alternate to the House of Delegates for each 25 full paid members or fraction thereof in the Association on December 31, of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof, provided however, that each component society which is composed of two or more counties shall be entitled to at least one delegate from each of the counties having *two* or more member physicians practicing in the county, of which the component society is composed; however, such delegates from multi-county component societies must practice or reside in the county they represent. Alternate delegates may be elected from the entire membership of the component medical societies. All Past Presidents of the Association, the Speaker and Vice Speaker shall serve as Delegates-at-Large."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #7—Definition of MSMA Council

(Introduced by the MSMA Council)

Whereas, The Committee on Planning has been working to correct ambiguities in the Constitution and Bylaws of this Association by studying the documents and offering suggestions, and

Whereas, The Committee has discovered conflicting language regarding the Council's relationship to the House of Delegates and to the Association, i.e., Article V of the Constitution states, "The Council shall be the *executive body of this Association* when the House of Delegates is not in session" while Chapter VI, Section 3 of the Bylaws states, "The Council shall be the *executive body of the House of Delegates* and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and Bylaws," therefore be it

*Resolved*, That Chapter VI, Section 3 of the MSMA Bylaws be amended to read: "The Council shall be the executive body of this Association and between sessions shall exercise the power conferred on the House of Delegates by the Constitution and Bylaws."

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #8—Responsibilities of a Medical Witness

(Introduced by the Commission on Medical-Legal Affairs—
Charles J. Ash, M.D., Chairman)

Whereas, The trial of a lawsuit is traditionally an adversary proceeding and attorneys for each side have the duty to present the issues in the light most favorable to the client they represent, and

Whereas, The adversary proceeding is foreign to the education, background and experience of the average physician, therefore be it

*Resolved*, That MSMA recognizes that as a medical witness, a physician should not allow himself to become partisan in a trial. The physician must maintain scientific objectivity without slanting or twisting his medical opinion or otherwise withholding, concealing or distorting information so that the medical profession may best serve the administration of justice, and be it further

*Resolved*, That, especially with regard to professional liability cases, an expert witness should be expected to be duly qualified and actively practicing in the particular field which is the subject of the litigation, and be it further

*Resolved*, That any physician who interferes with the proper administration of justice by misrepresenting his qualifications or giving false or misleading testimony be censored by the MSMA or disciplined by his own component medical society.

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #9—Uniform Membership in the AMA

(Introduced by Max S. Franklin, M.D., MSMA Immediate
Past-President)

Whereas, Organized medicine is faced with more and more government regulation and intervention, and

Whereas, The members of organized medicine should work together now more than at any other time, and

Whereas, On two previous occasions, resolutions like this one obtained a majority vote but not the two-thirds necessary to pass the resolutions, and

Whereas, The third time might now be successful, therefore be it

*Resolved*, That the House of Delegates of the Missouri Medical Association goes on record providing that there be uniform membership of the members of the MSMA and the American Medical Association to prove to the country that Missouri supports organized medicine to the fullest degree.

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #10—A Resolution for Better Representation

(Introduced by Max S. Franklin, M.D., St. Louis Medical Society)

Whereas, In the past, we have unsuccessfully requested a redistricting in order to obtain better representation; and

Whereas, This request has been fractionally and unsatisfactorily answered by adding more delegates to the House of Delegates; and

Whereas, Other states have had the same problem; and

Whereas, To cite just one example among many, the state of Illinois has more fully and successfully solved its problem by placing on its Board of Trustees (similar to our Council) nine trustees from Chicago and ten trustees from outstate areas; and

Whereas, Other states such as Michigan have solved the problem in similar fashion, and

Whereas, The St. Louis Medical Society and the St. Louis County Medical Society are voting at the time of this writing on the consolidation of the two societies, thus making even fore desirable and necessary to have more equitable representation on the Council; therefore be it

*Resolved*, That the House of Delegates directs the Council of the Missouri State Medical Association to bring forth a plan of better and more equitable representation on the Council to be presented at the fall meeting of the House of Delegates for action by the House of Delegates at that time.

(Referred to Reference Committee on Constitution and Bylaws.)

### Resolution #11—Funding for Ophthalmology Resident Training Programs

(Introduced by Greene County Medical Society)

Whereas, A regional optometry school has been proposed for Missouri and a strong legislative push made for the same, and

Whereas, According to Missouri manpower studies, the need for additional optometrists can be justified only by ignoring the fact that ophthalmologists are present in Missouri, and

Whereas, The necessary funds for the optometry school would be better spent for the production of ophthalmologists who can perform medicine and surgery of the eye as well as the so-called optometric function thereby improving health services to the people of Missouri, therefore be it

*Resolved*, That the MSMA strongly urges the Legislature to provide funding for ophthalmology resident training programs in Missouri instead of the optometry school.

(Referred to Reference Committee on Medical Education and Public Welfare.)

### Resolution #12—Component Medical Society Representation to MSMA House of Delegates

(Introduced by J. Otto Lottes, M.D., St. Louis Medical Society)

Whereas, The formula for determining delegate representation to the MSMA was changed by action at the November 2-3, 1977 Interim Session to provide "for each 50 full-paid members or fraction thereof in the Association on December 31, of the previous year, plus one additional delegate or alternate for each 100 members or major fraction thereof;" and

Whereas, The effect of the formula is to provide for 348 delegates from component medical societies compared to 240 delegates to the 1978 AMA Interim Session; and

Whereas, The result of the new formula added more delegates to the larger component societies without dealing with the issue of more equitable representation for all component societies to the MSMA; and

Whereas, The total size of the MSMA House of Delegates makes it difficult to plan, find suitable accommodations, and administer, as well as increase costs; therefore be it

*Resolved*, That the Planning Commission be directed to annually review representation to the MSMA House of Delegates that would consider the following criteria:

1. The total number of delegates be no greater than 200, excluding at-large-delegates in the total;
2. A percentage of MSMA members be used to establish the number of delegates representing each component medical society;
3. No component medical society be disenfranchised from representation.

(Referred to Reference Committee on Constitution and Bylaws.)

The speaker then reminded the delegates that, according to the Constitution and Bylaws, introduction of new resolutions not included in the Delegates' Handbook would be in order at the Second Session of the House provided that 200 copies of the resolution or funding for same are made available and presented to the delegates 24 hours before the meeting, that ten copies be submitted to the secretary and that introduction of each resolution is approved by a twohirds vote of the House of Delegates.

Members who had fulfilled the above requirements, however, were invited to read the resolves of the resolutions to be introduced at the Second Session.

There being no further business, the speaker adjourned he First Session of the House of Delegates.

# SECOND SESSION

## Friday, April 14, 1978

The Second Session of the House of Delegates was called o order at 4 PM by Dr. Lily Ann Hanes, vice-speaker, who presided.

Dr. McCraw, chairman of the Credentials Committee, reported that satisfactory credentials had been presented by en officers, nine councilors and 257 delegates and stated hat a quorum was present.

*(The motion to accept the report was approved.)*

The vice-speaker instructed the delegates to consider the reference committee reports as the resolutions upon which hey would vote.

The vice-speaker invited Dr. William D. Soper, chairman of the Reference Committee on Reports of Officers, to present his report.

### REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met on April 13, 1978 at 3:30 PM in the President's Room. The Council Minutes of April 17, June 4, September 10, November 2, 1977 and February 4, 1978, along with the supplemental report submitted by Dr. Andrew McCanse on April 13, 1978, were reviewed and the Reference Committee recommends that the Council Minutes be adopted, with the observation that a meeting of the Ad Hoc Committee of the MSMA, Missouri Osteopathic Association and the Board of Healing Arts was omitted. It was the Reference Committee's consensus that this could be a potentially valuable liaison and it is hoped that it will be revived.

We recommend adoption of this portion.

*(This portion of the report was adopted.)*

The remarks of the president and president-elect were reviewed and recommended for acceptance by the Reference Committee. The Committee commends both of these officers regarding the pertinence and excellence of their presentations and made the recommendation that in the future copies of such remarks be made available to the House of Delegates following their delivery.

The secretary's report was recommended for adoption with favorable comments regarding the increased membership in the Association.

The treasurer's report was recommended for adoption. The Reference Committee recommends, at Dr. Stokes' suggestion, that a simplified synopsis of expenditures be made available in the delegates handbooks in the future.

The report of the executive secretary was reviewed, approved and recommended for adoption.

Upon reviewing the Auxiliary president's interesting and excellent remarks, the Reference Committee recommends that all MSMA members encourage increased membership in and support of the Auxiliary.

The Reference Committee reviewed and recommended approval of the Committee on Publications. The Committee adds its appreciation for the fine efforts of Dr. Joseph V. Finnegan through his more than 16 years of service as editor of Missouri Medicine.

*(All of the above portions of the report were adopted.)*

**Dr. Lily Ann Hanes, vice-speaker, presided during the second session of the House of Delegates.**

The vice-speaker invited Dr. Lee H. Vensel, chairman, to present the report of the Reference Committee on Resolutions.

### RESOLUTIONS

The Reference Committee on Resolutions met at 4 PM in the Mission Room of the Crown Center Hotel with all members present.

The Committee approved the Council Minutes assigned to us, along with the report of the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

We call to the attention of the members of the House of Delegates that in approving the Commission on Medical Economics, Third Party Medicine and Governmental Relations report, which is included in your Handbook, you are also approving two resolutions which are included in this report, as follows:

*Resolved*, The MSMA reminds the governor and general assembly that the only way to assure quality medical care for patients in the Medicaid Program and to obtain a high rate of physicians participation is to appropriate enough funds in House Bill 1009 to provide a reasonable fee for physicians' services.

*Resolved*, that a committee composed of MSMA members and staff be appointed to negotiate with the Division of Family Services to prevent further encroachment on the practice of medicine and forestall curtailment of the services to the patient which results in additional deterioration of the Medicaid Program.

The Committee strongly recommends the adoption of these resolutions.

*(This portion of the report and the two resolutions it contains were adopted.)*

### Resolution #3—Appropriation of a Reasonable Sum for Physicians' Services

The Reference Committee considered Resolution #3—Appropriation of a Reasonable Sum for Physicians' Services.

We pay tribute to these gentlemen for doing an excellent job in this report. We had a good attendance and turnout at our meeting. There was a discussion concerning whether this report is too forceful in statement. Another group felt that if we do not express ourselves forcefully at this time, we would not be heard. As a consequence, we submit to the House an amended resolution to Resolution #3. The Committee recommends adoption to the following substitute resolution:

### Substitute Resolution #3

Whereas, The advisability of any specific therapy, medical or surgical, is a matter of professional opinion, and

Whereas, Physicians have historically recognized the value of consultation, and

Whereas, Third party payers, including state and federal governments, are beginning to seek mandatory second opinions for all elective surgical procedures, therefore be it

*Resolved*, That the Missouri State Medical Association support that physicians have historically recognized the right of a patient or physician to seek consultation when deemed of value and opposes the concept of mandatory consultation required by third party payers, and be it further

*Resolved*, That the Missouri State Medical Association reaffirms the right of a patient or physician to seek consultation freely with any consultant of his or her choice, and we

Support the concept of qualified and necessary consultants and oppose the concept of panels of consultants open or closed.

We support the concept that when second or more opinions are mandated by any party that this party is responsible for the consultant fee and related tests and the choice of consultant is the responsibility of the patient and/or the attending physician.

MSMA vigorously opposes the misconception that a second opinion is more valid than the first.

*Be it further Resolved*, that a copy of this resolution be supplied to the Missouri Delegation to the House of Delegates of the American Medical Association in St. Louis for introduction and consideration by that body.

*(The motion to adopt was approved and Resolution #3 was adopted as amended.)*

At this time, Dr. Burford, speaker, assumed the chair.

He invited Dr. Martin L. Crow, chairman of the Reference Committee on Miscellaneous Affairs, to present his report.

## MISCELLANEOUS AFFAIRS

The meeting of the Reference Committee on Miscellaneous Affairs was held at 3:30 PM in the Shawnee Room, Crown Center Hotel, Kansas City on April 13, 1978.

The Reference Committee recommends that the Council minutes of June 4, September 10, November 2, December 17 and February 4 be adopted as published, along with the supplemental report. I move acceptance of this portion of the report.

*(This portion of the report was adopted.)*

The Reference Committee next considered the report of the Committee on Legislative Affairs. Your Reference Committee felt that the Committee on Legislative Affairs should develop a mechanism to better inform the membership on pending legislation. A comment made in reference to this was that in one hearing in the Senate, one of the delegates who was attentive in the audience said that a letter was sent simultaneously to the Division of Family Services and to a Senate Hearing Committee. The Division of Family Services denied that it had received any communication concerning the proposed legislation.

The point he was trying to make is that the communication should be made toward the Senate Hearing Committee or the House Hearing Committee and not through Family Services. I, therefore, recommend that this portion of the report concerning the Legislative Committee be adopted.

*(This portion of the report was adopted.)*

The Reference Committee considered the report of the Commission on Public Affairs. The Committee recommends adoption of this portion of the report.

*(This portion of the report was adopted.)*

The speaker invited Dr. Kenneth Smith, chairman, to present the report of the Reference Committee on Medical Education and Public Welfare.

## MEDICAL EDUCATION AND PUBLIC WELFARE

The Reference Committee on Medical Education and Public Welfare was held at 3 PM in the Roanoke Room, Crown Center Hotel, on April 13, 1978. The first order o business was consideration of the portions of the Counci minutes that were referred to our Committee.

The Reference Committee recommends that the Counci minutes be adopted with one negative vote by a membe who is opposed to any legal recognition of physicians' assistants.

*(This portion of the report was adopted.)*

The Committee also considered the report of the Commission on Voluntary Health Agencies. The Committee recommends adoption of this report.

*(This portion of the report was adopted.)*

The Committee considered the report of the Commissio on Continuing Education and Health Manpower and recommends adoption of this report.

*(This portion of the report was adopted.)*

The Committee also considered the report from the Commission on Interspecialty Medicine and recommends adoptio of this report.

*(This portion of the report was adopted.)*

### Resolution #2—Computerized Donor Registry

The Reference Committee recommends that Resolutio #2 be adopted.

*(The motion to adopt was approved.)*

### Resolution #4—Method of Determining Payment of Hospital Bills by Third Parties

The Reference Committee considered Resolution #4 anc recommends adoption of the following substitute resolution

### Substitute Resolution #4

Whereas, There is presently a financial crisis in American medica care, the cost of hospitalization rapidly exceeding the ability of any one to pay; and

Whereas, The federal government is approaching this problen with curtailment of facilities and services, forming new bureaucracie to monitor provisions of these services; therefore, be it

*Resolved*, That the MSMA recognizes that cost reimbursemen formulae for payment of hospitalization by third parties have n incentive to reduce costs, prevent duplication or utilize older ye adequate facilities.

*(The substitute resolution for Resolution #4 was adopted.*

### Resolution #11—Funding for Ophthalmology Resident Training Programs

The Reference Committee considered Resolution #11 anc submits the following substitute resolution:

### Substitute Resolution #11

Whereas, A regional optometry school has been proposed fo Missouri and a strong legislative push made for the same, and

Whereas, There is insufficient data to support the need for additional optometrists in the state of Missouri, and

Whereas, The necessary funds for the optometry school woul be better spent for the education of opthalmologists who can perform medical and surgical treatment of the eye as well as th "optometric" functions, thereby improving health services to th people of Missouri, therefore be it

*Resolved*, That the MSMA strongly urges the Legislature to provide adequate funding for existing medical training programs Missouri instead of funding the optometry school.

The Reference Committee recommends adoption of Substitute Resolution #11.

*(The motion was seconded. The speaker called for discussion. Dr. H. B. Ivy moved that the substitute resolutio be amended as follows:*

*Be It Further Resolved*, That the MSMA Staff be requested to lace a copy of this resolution on the desk of each Missouri senator n Monday morning.

*(The motion was seconded and, after discussion, the amendient to the substitute resolution was approved. The speaker alled for a vote on the substitute resolution as amended. ubstitute Resolution #11 was adopted as amended.)*

The Committee considered the report of the Ad Hoc ommittee on the Impaired Physician and recommends doption of this report.

*(This portion of the report was adopted.)*

After reviewing the report, the Reference Committee also ecommends the adoption of an amendment to Chapter VII, ection 1 of the Bylaws to add The Committee on the Imaired Physicians as a standing Committee.

### PROPOSED AMENDMENT TO CHAPTER VII, SECTION 1—BYLAWS

Amend Chapter VII-Committees and Commission, Section 1, by dding the words "Committee on the Impaired Physician" after line 0 in said section and further amend said Chapter by inserting at e end of Section 1, the following;

The Committee on the Impaired Physician shall consist of five embers of the Association appointed by the President, two memers shall be appointed for three years, two for two years, and one ember for one year. As the terms of each expires, his successor all be appointed for a term of three years. The Committee on the npaired Physician shall plan and execute programs of professional ssistance for members of this Association who may require special ssistance to continue or return to their professional activities.

*(The speaker noted that the proposed MSMF Bylaws mendment would lay on the table for a 24-hour period. It ill be removed from the table and voted on at the Third ession of the House of Delegates. He then called for a ote on this portion of the report and it was adopted.)*

The Reference Committee considered the supplementary eport of the Council meeting of April 12, 1978, which conained the Council Resolution on the Cost of Medical Care. he Committee recommends the adoption of this suppleentary report which includes this motion.

*(This portion of the report was adopted.)*

The speaker invited Dr. Jean Chapman, chairman, to present the report of the Reference Committee on Constitution and Bylaws.

### CONSTITUTION AND BYLAWS

The meeting of the Reference Committee on Constitution and Bylaws was held at 3 PM in the Liberty Room of the Crown Center Hotel, Kansas City, Missouri on April 13, 1978.

The Committee considered the Council minutes which were referred to the Committee and recommends that these minutes be approved with the correction of one typographical error.

*(This portion of the report was adopted.)*

The Reference Committee reviewed the reports of the Committee on Planning, the Committee on Constitution and Bylaws and the supplementary report of the Committee on Constitution and Bylaws and the Commission on Medical-Legal Affairs. The Reference Committee commends the fine work of each of the chairmen and members of these committees and recommends approval of these reports.

*(This portion of the report was adopted.)*

#### Resolution #10—A Resolution for Better Representation

The Reference Committee considered Resolution #10 and recommends the following:

It is the opinion of the Reference Committee that a more equitable representation appears to be the desired goal of the MSMA. Previous attempts to change the composition of the House of Delegates would have resulted in the disenfranchisement of certain rural societies. Therefore, the Committee recommends that the following substitute resolution be adopted:

*Resolved*, That the House of Delegates directs the Council of the MSMA to bring forth a plan of representation on the Council to be presented at the fall meeting of the House of Delegates for action of the House of Delegates at that time, which said plan asserts the principle that each voting member of the Council other than the President shall represent an approximately equal number of members of MSMA instead of geographical districts, and that the House of Delegates shall submit the final plan to the members of the MSMA for a constitutional referendum vote.

*(The motion to adopt Substitute Resolution #10 was*

**MSMA councilors reelected during the Annual Session are** *(left to right)* **Drs. Irving H. Clark**, Kansas City, Seventh District; **Richard V. Bradley**, St. Louis, Third District; **H. Peter Ekern**, Mexico, Fifth District; and **Richard Hedges**, Excelsior prings, First District. **Dr. Claude Cooper** of Thayer, Ninth District, was unable to attend.

*seconded. Dr. Marvin Singleton, Joplin, moved that the substitute resolution be amended by deleting the following words,* "which said plan asserts **the principle that each voting member of the Council other than the President shall represent an approximately equal number of members of the MSMA instead of geographic districts.**" *His amended resolution reads as follows:*

> *Resolved*, That the House of Delegates directs the Council of the MSMA to bring forth a plan of representation on the Council to be presented at the fall meeting of the House of Delegates for action of tbe House of Delegates at that time, and that the House of Delegates shall submit the final plan to the members of the MSMA for a constitutional referendum vote.

*Dr. Singleton's motion to amend was seconded.*

*Dr. Hubert Ritter, St. Louis, then moved to amend Dr. Singleton's amendment as follows:*

> *Rseolved*, The House of Delegates directs tbe Council of the Missouri State Medical Association to bring fortb plans of representation on the Council to be presented at the Fall Meeting of the House of Delegates for action of the House of Delegates at that time, whicb said plans assert the principle that each voting member of the Council other than the President shall represent an approximately equal number of members of the MSMA.

*After a discussion the speaker called for a standing vote on Dr. Ritter's amendment. The motion was defeated.*

*The speaker called for a standing vote on Dr. Singleton's amendment to Substitute Resolution #10. The motion carried.*

*The speaker then called for a vote on Substitute Resolution #10 as amended. Dr. Ritter moved that the following words be deleted from the resolution,* "**. . . and that the House of Delegates shall submit the final plan to the members of the MSMA for a constitutional referendum.**" *The motion carried.*

*Dr. Jerry Meyer, Concordia, then moved that the words "equitable, democratic" be added to the resolution to read,* "**Resolved, that the House of Delegates direct the Council of the MSMA to bring forth a plan of equitable, democratic representation on the Council. . . .**" *The motion carried.*

*Dr. George Thoma, St. Louis, moved to amend the resolution to state that* "**The House of Delegates directs the Council of the Missouri State Medical Association to bring forth a plan of equitable, democratic representation on the Council to the 1979 Annual Meeting of the House of Delegates for action of the House of Delegates at that time. . . .**"

*Dr. Thoma's motion was defeated.*

Dr. John Griffith, Kansas City, moved that the resolution be amended by adding the words "or plans" following the word "plan." The motion carried.

The speaker called for the vote on Substitute Resolution #10 as amended and which reads as follows:

> *Resolved*, That the House of Delegates directs the Council of the MSMA to bring forth a plan or plans of equitable, democratic representation on the Council to be presented at the Fall Meeting of the House of Delegates for action by the House of Delegates at that time.

*(Substitute Resolution #10 was adopted as amended.)*

It is our Committee's recommendation as follows:

Through testimony at this and other meetings of the House of Delegates, it has become obvious to this Committee that the Constitution is in need of review for possible revision. Therefore, it is the recommendation of this Committee that an Ad Hoc Committee be appointed by the President to review the method of selection of AMA delegates and delegates to the MSMA House of Delegates and that the recommendations of that Committee shall be submitted to the House of Delegates at the next meeting.

*(The motion to adopt this portion of the report was approved.)*

Being consistent as a Committee, therefore, the Committe makes the following dispositions of the following resolutions:

### Resolution #1—Voting for AMA Delegates

The Reference Committee recommends that Resolutio #1 not be adopted.

*(Resolution #1 was not adopted.)*

### Resolution #5—Weighted Vote

The Reference Committee recommends that Resolutio #5 not be adopted.

*(Resolution #5 was not adopted.)*

### Resolution #6—Membership Representation

The Reference Committee recommends that Resolutio #6 not be adopted.

*(Resolution #6 was not adopted.)*

### Resolution #12—Component Medical Society Representation to the MSMA House of Delegates

The Reference Committee recommends that Resolutio #12 not be adopted.

*(Resolution #12 was not adopted.)*

### Resolution #7—Definition of MSMA Council

The Reference Committee recognizes that this is largel a housekeeping resolution. The Committee also recognize that currently the House of Delegates retains the ultimat power of the Association under the Constitution and Bylaws Therefore, the Committee recommends the adoption of th following substitute resolution:

### Substitute Resolution #7

> *Resolved*, That Chapter VI, Section III of the MSMA Bylaws b amended to read:
> The Council shall be the executive body of this Association an between sessions sball exercise the power conferred on it by th House of Delegates under the Constitution and Bylaws.

I wish to clarify the point that this is a matter of languag and it was stated in the hearing that it should be rewritter to be consistent with current practices in the House of Delegates.

*(The motion was seconded and Substitute Resolution #7 was adopted.)*

### Resolution #8—Responsibilities of a Medical Witness

The Reference Committee examined Resolution #8, whicl was submitted by the Commission on Medical-Legal Affairs, and wishes to express its appreciation to the Commission for its work on this issue. The Reference Committee agrees with the intent expressed in this resolution and recommends that Resolution #8 be adopted.

*(Dr. George Hawkins, St. Louis, moved that Resolution #8 be referred back to the Committee on Medical-Lega Affairs for further definition. The motion carried.)*

### Resolution #9—Uniform Membership in the AMA

The Reference Committee notes that this subject has been fully considered by this House of Delegates in the past three sessions and has been defeated. Therefore, the Committee recommends that Resolution #9 not be adopted.

*(Resolution #9 was not adopted.)*

### Unfinished Business

The Speaker asked the House of Delegates to consider he following amendment to the Bylaws of the Missouri State Medical Association which had been held over from the First Session of the House on Thursday, April 13, 1978:

#### AMENDMENT TO CHAPTER III, SECTION 1

In Chapter III, Section 1, Paragraph 2, change the last sentence o read:

A sufficient number of copies of the resolution for the use of the House of Delegates or funding for the same must be supplied by he individual or society introducing the resolution.

*(The amendment to Chapter III, Section 1 of the Bylaws was adopted.)*

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## Introduction of New Business

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The House of Delegates approved the introduction of Resolution #13 by a two-thirds vote. The resolution was introduced by Dr. John C. Soucy, Jr., St. Charles-Lincoln County Medical Society.

#### Resolution #13—Driving and Drugs

Whereas, It has been shown that psychotropic drugs, antihistamines and certain other drugs, including some analgesics, may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks, such as driving a car or operating machinery, and

Whereas, The Missouri State Medical Association wishes to insure the safety of all the citizens of this state, be it

*Resolved*, That the Missouri State Medical Association initiates legislation which would require an appropriate warning on all prescription medicines which have the potential to impair mental and/or physical abilities unless specifically directed otherwise by the attending physician.

**(Referred to Reference Committee on Miscellaneous Affairs.)**

The House of Delegates approved the introduction of Resolution #14 by a two-thirds vote. The resolution was introduced by Butler-Wayne-Ripley-Carter County Medical Society.

#### Resolution #14—Policies of Medicaid

Whereas, Current policies of the Division of Family Services in administrating the Medicaid program have led to confusion due to the following points:

1. Medicaid personnel have a tendency to recode a procedure (from 90080 to 90060) or simply send back a lesser payment without comment when they do not know what service was provided.
2. Medicaid personnel respond to telephone inquiries, but not in writing, that 90080 should be used only once a year when they don't know what a particular patient requires.
3. The Code of the Missouri Medicaid System is insufficient to adequately cover the range of services and, when a written explanation of procedure must be provided, Missouri Medicaid pays the smallest charge possible, therefore be it

*Resolved*, That the Missouri State Medical Association asks the Division of Family Services to:

1. Put all policies in writing.
2. Cease telling physicians what services to provide.
3. Stop changing code numbers on submitted services.
4. Make written policies conform to the policies given in response to telephone inquiry.
5. Start using Medicare Code to make the first step toward reducing the number of Codes the physician must use and simplifying the administration of claims on patients who are both Medicare-Medicaid eligible.
6. Support legislation that would allow participating physicians to deduct from their state income tax the difference between a physician's usual fee and the payment he must accept from Medicaid.

*(Referred to Reference Committee on Miscellaneous Affairs.)*

#### Resolution—Councilor Districts

Since a Resolution on Councilor Districts did not receive a two-thirds vote of approval for introduction by the House of Delegates, its introduction was not allowed and it was not considered by the House.

Copies of the above resolutions had been given to the delegates at the First Session of the House of Delegates on Thursday, April 13, 1978.

There being no further business, the speaker adjourned the Second Session of the House of Delegates.

# THIRD SESSION

### Sunday, April 16, 1978

The Third Session of the MSMA 120th House of Delegates was called to order by the speaker, Dr. Burford.

Dr. Doyle McCraw, chairman, gave the report of the Credentials Committee and reported that ten officers, nine councilors and 267 delegates were present and constituted a quorum.

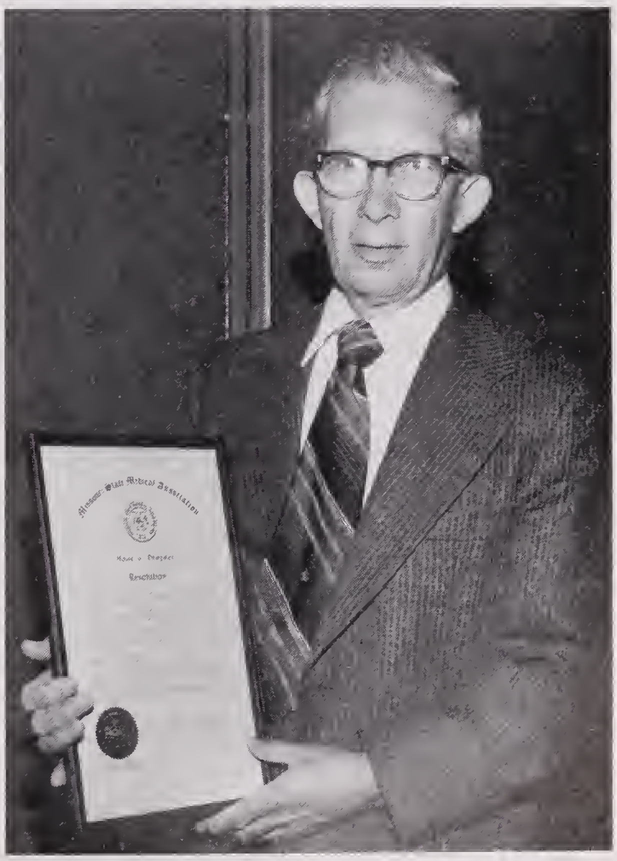
Dr. Howard McAlhany presented a plaque to Joseph V. Finnegan, M.D. as a token of appreciation from the Missouri State Medical Association for his outstanding service as editor of Missouri Medicine since 1962. The plaque contained the resolution of appreciation which was unanimously approved at the First Session of the House.

Dr. McAlhany then introduced Wilfred E. Wooldridge, M.D. of Springfield who had accepted the appointment as editor of Missouri Medicine.

Dr. David L. Spalding, chairman, was invited to present the report of the Nominating Committee.

#### NOMINATING COMMITTEE

The Nominating Committee, made up of representatives



Dr. Joseph V. Finnegan, who retired as editor of Missouri Medicine, accepts the MSMA plaque of appreciation for his outstanding service.

Dr. Andrew McCanse addresses the House of Delegates after his election as President-Elect for 1978-1979.

of each of the councilor districts, met on April 14 at 1:30 PM at the Crown Center Hotel. The Committee submits to the House of Delegates the names of the following members on the slate of officers for the ensuing year for approval by the Association:

Vice-President—Dr. Donald A. Fakhoury, Kansas City
Vice-President—Dr. H. B. Ivy, Springfield
Vice-President—Dr. Joseph V. Finnegan, St. Louis
AMA Delegate—Dr. James C. Sisk, St. Louis
AMA Delegate—Dr. Rae W. Froehlich, Lebanon
AMA Alternate Delegate—Dr. Richard P. Bowles, Liberty
AMA Alternate Delegate—Dr. Francis X. Lieb, St. Louis
Speaker—Dr. Edwin K. Burford, Jr., Cape Girardeau
Vice-Speaker—Dr. Lily Ann Hanes, St. Louis

*(The speaker invited nominations from the floor. Hearing none, he entertained a motion that nominations cease. The vote to elect the slate of officers presented by the Nominations Committee was unanimous.)*

Dr. John I. Matthews, secretary, announced that the following councilors and vice-councilors had been elected for two-year terms:

*First District,* Dr. Richard C. Hedges, Excelsior Springs
  *Vice-Councilor,* Dr. Gary Dyer, St. Joseph
*Third District,* Dr. Richard V. Bradley, St. Louis
  *Vice-Councilor,* Dr. Richard Fallon, St. Louis
*Fifth District,* Dr. H. Peter Ekern, Mexico
  *Vice-Councilor,* Dr. Mary J. McCaffree, Jefferson City
*Seventh District,* Dr. Irving H. Clark, Kansas City
  *Vice-Councilor,* Dr. Ronald A. Youmans, Kansas City
*Ninth District,* Dr. Claude W. Cooper, Thayer
  *Vice-Councilor,* Dr. Jack Wiles, West Plains.

The speaker invited nominations for the office of president-elect. Dr. W. Jack Stelmach of Kansas City nominated Dr. Andrew McCanse of Kansas City. The nomination was seconded by Dr. Kenneth Glover of Mount Vernon, Dr. J. Otto Lottes of St. Louis, Dr. Paul Rother of St. Charles and Dr. Max A. Heeb of Sikeston.

*(Dr. Doyle C. McCraw moved that Dr. McCanse be elected by acclamation. The motion was approved.)*

The President-Elect was escorted to the speaker's stand where he made a brief acceptance statement. Mrs. McCanse and their daughters, Andrea and India, also were escorted to the stand and introduced to the House of Delegates.

Dr. Martin L. Crow, chairman, was invited to present the additional report of the Reference Committee on Miscellaneous Affairs.

### MISCELLANEOUS AFFAIRS

The Reference Committee on Miscellaneous Affairs was convened at 6 PM on Friday, April 14, 1978 in the Century Ballroom of Crown Center Hotel. The Reference Committee considered the following resolutions:

#### Resolution #13—Driving and Drugs

The Reference Committee feels that this resolution is too cumbersome and it is still the responsibility of the physicians to fully inform their patients and include instructions concerning drug use. The Committee recommends that Resolution #13 not be adopted.

*(Resolution #13 was not adopted.)*

#### Resolution #14—Policies of Medicaid

The Reference Committee realizes that there are many problem areas in the Medicaid program, but felt that this resolution duplicates much of the effort currently being carried out by the committees of the MSMA. The Committee recommends adoption of the following substitute resolution:

#### Substitute Resolution #14

Whereas, Current policies of the Division of Family Services in administering the Medicaid program have led to confusion, be it

*Resolved,* That the MSMA recognizes there are difficulties and inconsistencies in the coding and policy intepretation and that the MSMA Action Committee on Socioeconomic Affairs aids in improvement of this difficult area.

*(The motion carried and Resolution #14 was adopted.)*

## Unfinished Business

The speaker asked the House of Delegates to consider an amendment to the MSMA Bylaws from the report of the Committee on Education and Public Welfare, which was introduced at the Second Session on Friday, April 14.

#### CHAPTER VII—COMMITTEES AND COMMISSIONS, SECTION 1

Amend Chapter VII-Section 1 by adding the words "Committee on the Impaired Physician" after line 10 in said section and furthur amend said Chapter by inserting at the end of Section 1 the following:

The Committee on the Impaired Physician shall consist of five members of the Association appointed by the President, two members shall be appointed for three years, two for two years and one member for one year. As the terms of each expires, his successor shall be appointed for a term of three years. The Committee on the Impaired Physician shall plan and execute programs of professional assistance for members of this Association who may require special assistance to continue or return to their professional activities.

*(The motion to adopt the amendment to Chapter VII-Section 1 of the Bylaws was approved.)*

The speaker recognized Dr. William D. Soper of Liberty who introduced the following courtesy resolution regarding MSMA President Howard J. McAlhany:

#### Courtesy Resolution—Howard J. McAlhany, M.D.

Whereas, The Missouri State Medical Association as been singularly pleased and honored during this at times discordant year for the strongly concerned leadership, and

Whereas, His administration has been marked by such fortunate achievements as the initiation of the MSMA Action Plan and the mplementation of our captive insurance company, and,

Whereas, His consistently gentlemanly and controlled conduct has served as an example for us all, therefore, be it

*Resolved*, that this House of Delegates of the Missouri State Medical Association heartily thanks and congratulates Dr. Howard J. McAlhany for his unstinting efforts as president, wishes him well in he future and happily anticipates his leadership and counsel in the years to come, and be it further

*Resolved*, that this House of Delegates congratulates the Greene County Medical Society for being so fortunate as to have such an llustrious member as Dr. McAlhany.

*(On behalf of the Clay County Medical Association, Dr. Soper moved the adoption of the resolution. His motion carried unanimously.)*

## Installation of Officers

The speaker invited the officers and councilors to stand n front of the podium where the Association secretary, Dr. John I. Matthews, administered the oath of office.

The speaker invited President John N. Martin to announce his committee and commission appointments for the 1978-1979 year. Members whose terms had not expired were not mentioned and it is assumed that they will continue to serve.

### Committee Appointments

*Committee on Constitution and Bylaws*—William Soper, Liberty and Roy Gillespie, Branson (terms to expire in 1981); R. Stacey Long, Kansas City, chairman for 1978-1979.

*Committee on Planning*—Joseph R. Prokop, St. Joseph and Paul H. Rother, St. Charles (terms to expire in 1938); Paul H. Rother, chairman for 1978-1979.

*Committee on Voluntary Health Agencies*—Carl Siegel, Kansas City and Carl F. Dennison, St. Louis (terms to expire in 1981); William C. Allen, Columbia, chairman for 1978-1979.

*Committee on Legislative Affairs*—John N. Martin, St. Joseph; Andrew McCanse, Kansas City; Richard V. Bradley, St. Louis; Eugene T. Hansbrough, Poplar Bluff; Hubert A. Ritter, St. Louis; Robert E. Bregant, Jefferson City; John I. Matthews, Jefferson City, chairman for 1978-1979 (all one-year terms).

### Commission Appointments

*Commission on Public Affairs*—Jean Chapman, Cape Girardeau; A. J. Campbell, Sedalia; Sharon Waggoner, St. Joseph; Ronald Youmans, Kansas City; Robert F. Tobin, St. Joseph (terms to expire in 1981); Byron E. Watts, Jefferson City, chairman for 1978-1979.

*Commission on Medical Economics, Third Party Medicine and Governmental Relations*—Stanley S. Peterson, Springfield; John R. Esther, Joplin; James O. Lottes, St. Louis; R. Phillip Acuff, St. Joseph; A. E. Braverman, Kansas City (terms to expire in 1981); Max A. Heeb, Sikeston, chairman for 1978-1979.

*Commission on Continuing Education and Health Manpower*—George H. Ladyman, Poplar Bluff, chairman for 1978-1979; Larry A. Ozenberger, Plattsburg; Charles N. Mullican, St. Joseph; Gerald M. Callaghan, St. Louis; George D. Comfort, Mexico (terms to expire in 1981).

*Commission on Medical-Legal Affairs*—Fred H. Thornton, Sikeston; William R. McPhee, Kansas City; George L. Hawkins, Jr., St. Louis; Noel R. Weyerich, Chesterfield; Richard O. Craig, St. Joseph (terms to expire in 1981); Charles Ash, Springfield, chairman for 1978-1979.

*Commission on Interspecialty Medicine—(It is the policy for the president of the Association to appoint representatives of the specialty organizations making up the Commission on Interspecialty Medicine as recommended by the specific organizations. Some of these organizations had not provided names of their proposed representatives by this date. Following are appointments of representatives who had been recommended.)*

*Missouri Psychiatric Association*—Elizabeth Heimburger, Columbia; *Missouri Federation of Urologists*—Milton Ozar, Kansas City; *Missouri Society of Pathologists*—T. J. Cooper, St. Louis; *Missouri Radiological Society*—William H. McAlister, St. Louis; *Missouri Society of Neurosurgeons*—George L. Hawkins, Jr., St. Louis; *Missouri Society of Anesthesiology*—James O. Alyea, Columbia; *Missouri Chapter, American College of Surgeons*—R. O. Frederick, St. Louis; *Missouri Ophthalmological Society*—Larry K. Stauffer, Jefferson City; *Missouri State Allergy Association*—J. Allen Thiel, St. Louis; *Missouri ENT Association, Inc.*—William P. Lampros, St. Louis; *Missouri Thoracic Society*—Daniel J. Hurst, Columbia; *Missouri Academy of Family Physicians*—C. W. Chastain, Kansas City; *Missouri Academy of Pediatrics*—Donald L. Thurston, St. Louis; *Missouri Dermatological Society*—Jerry Foote, Columbia; *Central Society of Physical Medicine and Rehabilitation*—Franz U. Steinberg, St. Louis; *Missouri OB-GYN Society*—Henry Wilumsen, St. Joseph; *Missouri Society of Internal Medicine*—Clem Grebel, St. Louis.

The speaker requested an invitation for the meeting place of the next Annual Session of the Association. Dr. J. Otto Lottes extended the invitation to the MSMA to hold its 121st Annual Session in St. Louis on April 19-22, 1979. The invitation was accepted.

The speaker reminded those present that the Third Interim Session will be held on Nov. 4-5, 1978 in Cape Girardeau.

There being no additional business, the speaker declared the 120th Annual Session adjourned.

# REGISTRATION OF THE 120TH ANNUAL SESSION

## First Councilor District—61

Allen, S. Lloyd, Kansas City
Arst, H. E., Kansas City
Bare, Edward F., Tarkio
Bates, G. Comer, Kansas City
Bauman, Henry C., Maryville
Beck, Paul M., St. Joseph
Bohnsack, Ralph W., Brookfield
Boone, Daniel C., Kansas City
Bowles, Richard P., Liberty
Brennan, Richard, St. Joseph
Carlin, Albert L., Stanberry
Christ, Martin H., St. Joseph
Cofer, Tom, Chillicothe
Conrad, Tom, Chillicothe
Conrad, Joseph, Chillicothe
Cook, Jerry W., Kansas City
Craig, Owen W. D., St. Joseph
Cross, Albert D., Trenton
Dixon, John R., Brookfield
Dyer, Gary A., St. Joseph
Ekern, H. Peter, Mexico
Fakhoury, Donald A., Kansas City
Fernandez, Fernado, St. Joseph
Fisher, Joseph L., St. Joseph
Gerhart, Merriam, Bethany
Gondring, William H., St. Joseph
Grimes, M. E., St. Joseph
Harr, Patrick B., Maryville
Hayes, Paul W., St. Joseph
Hedges, Richard C., Excelsior Springs
Herman, Allen I., St. Joseph
Jiminez, Jose, St. Joseph
Kline, Edmund W., St. Joseph
Kuenzi, D. E., Kansas City
Leslie, Stephen A., North Kansas City
Littlejohn, Robert T., North Kansas City
McDaniel, John R., St. Joseph
McDonald, Wilbur P., St. Joseph
Martin, John N., St. Joseph
Matteson, Frank B., Grant City
Moen, B. H., St. Joseph
Murphy, James A., St. Joseph
Ness, Carl K., St. Joseph
Nixon, Edward E., Gallatin
O'Connor, William B., St. Joseph
Petersen, H. E., St. Joseph
Redmond, William S., St. Joseph
Rosenthal, Irwin I., St. Joseph
Rost, William B. St. Joseph
Schertz, T. B., North Kansas City
Sklenar, D. E., St. Joseph
Soper, William D., Liberty
Stevens, Edward M., St. Joseph
Thomas, F. Anthony, Kansas City
Tobin, Robert F., St. Joseph
Trinidad, H. R., Chillicothe
Tumanut, Benesto, Kansas City
Wadlow, Ernest E., St. Joseph
Whitsell, Ora E., St. Joseph
Wicks, Edwin O., Kansas City
Williams, R. D., Kansas City
Yoon, Jin S., Chillicothe

## Second Councilor District—13

Cohrs, Clarence C., Moberly
Davis, Landis Y., Canton
Eggleston, Donald E., Macon
Fleming, J. Will, Moberly
Hall, Stanley G., Hannibal
Kruse, Carl R., Palmyra
Miciano, Ruel T., Moberly
Palmer, Russell H., Palmyra
Plowman, Edward M., Hannibal
Stuerman, L. G., Louisiana
Tarvydas, Francis, Edina
Tompson, R. V., Moberly
Walterscheid, J. H., Hannibal

## Third Councilor District—106

Anderson, John M., St. Louis
Anglo, Luis B., St. Louis
Arney, William G., St. Louis
Banton, M. Roman, St. Louis
Bell, Robert M., Hannibal
Bergman, Hugo F., St. Louis
Berman, William, St. Louis
Biddy, Ralph L., St. Louis
Bird, H. Waldo, St. Louis
Block, Arnold S., St. Louis
Bohigian, George, St. Louis
Bolton, Robert, St. Louis
Bradley, Richard V., St. Louis
Brennan, Robert, Kirkwood
Bricker, Eugene M., Columbia
Brown, James M., St. Louis
Brown, Seymour, Chesterfield
Bruns, Kenneth, St. Louis
Bryan, James H., Clayton
Burmeister, R. William, St. Louis
Caciolo, Carlo, St. Louis
Callaghan, Gerard M., St. Louis
Casey, Edwin J., St. Louis
Chishti, M. Ishaq, St. Louis
Cooper, Thomas J., St. Louis
Criscione, James S., Kirkwood
Drews, Robert C., Clayton
Ellersieck, Dorothy M., St. Louis
Evens, Ronald, St. Louis
Fallon, Richard H., St. Louis
Finnegan, Joseph V., St. Louis
Flotte, Sylvester A., St. Louis
Foro, Thomas E., Columbia
Franklin, Max S., St. Louis
Fraser, Daniel M., St. Louis
Gagliardo, Joseph, Clayton
Geise, August W., St. Louis
Gladney, John, St. Louis
Graul, Walter P., St. Louis
Grebel, Clement B., St. Louis
Grindon, J. B., St. Louis
Gunn, Walter T., St. Louis
Haddock, James N., Webster Groves
Hanes, Lily Ann., Webster Groves
Hardy, David A., Creve Coeur
Hawk, Bray, St. Louis
Hawkins, George L., Webster Groves
Hogan, Patrick C., St. Louis
Hollo, Vencel W., St. Louis
Jean, J. Ted, St. Louis
Jones, Otey S., St. Louis
Kayes, Jack, St. Louis
Kelly, William A., St. Louis
Knopf, Harry L. S., St. Louis
Koenig, Marvin I., Florissant
Kowert, Edward H., St. Louis
Kohlman, Robert, St. Louis
Lieb, Francis X., St. Louis
Logie, MacDonald, St. Louis
Lottes, J. O., St. Louis
Luechtefeld, Frank, St. Louis
Luedde, Philip S., St. Louis
McAlister, William H., St. Louis
MacDonald, Robert, St. Louis
Machek, O., St. Louis
Maminta, Napoleon, Chesterfield
Manansala, Antonio Q., St. Louis
Manske, Paul, St. Louis
Max, Paul F., St. Louis
Mell, Roger, St. Louis
Mendelsohn, George E., St. Louis
Meyer, Melvin E., St. Louis
Miller, Geoffrey, St. Louis
Milster, Clyde R., St. Louis
Monafo, William, St. Louis
Moritz, Gerald, St. Louis
Mueller, Clarence E., St. Louis
Obermeyer, Charles G., St. Louis
Parwatikar, S., Olivette
Quick, Richard T., St. Louis
Richards, Frank O., St. Louis
Ritter, H. A., St. Louis
Roulhac, George E., St. Louis
Salmon, Mickey L., St. Louis
Sciortino, John S., St. Louis
Sessions, Donald, St. Louis
Shah, Anwar, St. Louis
Shaw, Edward J., St. Louis
Shields, John B., St. Louis
Signorelli, A. J., St. Louis
Simon, Jerome I., St. Louis
Smith, Kenneth R., St. Louis
Steinberg, Franz U., St. Louis
Stokes, James M., St. Louis
Stoneman, William, St. Louis
Thiel, J. Allen, St. Louis
Thoma, G. E., St. Louis
Thurston, Don L., St. Louis
Vacca, Joseph B., St. Louis
Valko, Robert, St. Louis
Velasco, Ernesto, St. Louis
Walz, Bruce, Balwin
Weir, Don, St. Louis
Wilkinson, David, St. Louis
Wissner, Seth, St. Louis
Zografakis, George, St. Louis

## Fourth Councilor District—58

Aronberg, Jerome, Clayton
Aylward, H. J., St. Louis
Bagby, James W., St. Louis
Baker, Donald L., Union
Balster, Vernon, St. Louis
Bolinske, Robert, St. Louis
Callahan, Donald E., St. Louis
Carron, J. F., Arnold
Catanzaro, Rudolph E., St. Louis
Clayton, Jill M., St. Louis
Clever, Victor G., St. Charles
Cunningham, E. J., St. Louis
Damron, Edward, Elsberry
Deles, Vicente D., Crystal City
Diestelhorst, James A., Creve Coeur
Donnell, H. E., De Soto
Eggleston, Harry, St. Louis
Fabito, Melinda, St. Louis
Goldman, Gordon M., St. Louis
Herjanic, Marijan, St. Louis
Hetlage, Louis P., Troy
Hookerman, Bruce J., St. Louis
Hughes, Robert G., St. Louis
Johnson, Tom, Jr., St. Louis
Kabir, Mohammed, St. Louis
Karsh, Robert, St. Louis
Laird, John, St. Louis
Lewin, W. Howard, St. Louis
Magness, Guy, University City
Maravilla, L. M., St. Louis
Mayer, Robert A., St. Louis
Meneses, O. G., St. Louis
Meyer, Jay, St. Louis
Middleton, Jerry N., St. Louis
Miller, Charles, Kirkwood
Molden, Charles A., St. Louis
Montes, Arturo C. St. Louis
Mullarky, W. A., St. Ann
Nesselrode, John H., Independence
Obando, Francisco J., Troy
Ohlms, David L., St. Louis
Peterson, Frederick, St. Louis
Richardson, W. R., Union
Ring, Edward, St. Louis
Rother, Paul H., St. Charles
Rumelt, Michael, St. Louis
Santillano, Antonio B., Ballwin
Schaerer, Jacques P., St. Louis
Shaw, James T., Hermann
Sherman, W. Gary, St. Louis
Sisk, James, St. Louis
Soucy, John C., Jr., St. Louis
Stuart, Wallace, Crestwood
Valach, Frank J., St. Louis
Viers, Wayne A., St. Louis
Walker, Francis S., St. Louis
West, Joseph, Kirkwood
Whitener, Miles C., St. Louis

## Fifth Councilor District—76

Allen, R. W., Columbia
Allen, William C., Columbia
Almond, Carl, Columbia
Anderson, T. R., Columbia
Asel, Norman W., Columbia
Baker, A. Sherwood, Columbia
Black, Samuel P. W., Columbia
Brukardt, Diane, Columbia
Chiasson, Emmerson, Columbia
Cooper, Charles W., Jefferson City
Cooperstock, Michael, Columbia
Cope, James C., Rocheport
Davis, David, Columbia
Davis, William E., Columbia
Durst, Henry, Fulton
Eggers, George W. N., Jr., Columbia
Exon, C. S., Jefferson City
Foote, Jerry, Columbia
Garrett, Glen H., Columbia
Giffen, Larry, Jefferson City
Guhleman, Henry V., Jr., Jefferson City
Gunn, Jack, Versailles
Hall, C. Robert, Versailles
Hart, William M., Columbia
Heimburger, Richard A., Columbia
Hoxworth, G. M., Mexico
Hubbell, Ira G., Columbia
Hurst, Daniel J., Columbia
Husain, Syed A., Columbia
Ide, Carl, Columbia
Jackson, Vernon B., Fulton
Jolly, Ben N., Mexico
Joseph, Donald J., Columbia
Kanagawa, Harold, Jefferson City
Leeper, Claude K., Columbia
Loyd, Earl L., Holts Summit
McCaffree, Mary, Jefferson City
McCluer, Shirley, Champaign, Illinois
McCord, Scott, Columbia
Marco, Philip J., Columbia
Matta, Camille, Kansas City
Matthews, John I., Jefferson City
Meinershagen, C. W., Jefferson City
Millikan, L. E., Columbia
Mitchell, Frank L., Columbia
Moon, Agnes, Columbia
Moranville, B. A., Columbia
Payne, David, Columbia
Peterson, Charles R., Columbia
Rall, Kenneth L., Columbia
Ritterbusch, James K., Fulton
Rodes, Ned, Columbia
Rodgers, Elrie P., Columbia
Schokker, Johannes, Jefferson City
Shaw, William J., Fayette
Simonds, John, Columbia
Siu, Kenneth, Jefferson City
Stabenow, David L., Columbia
Stauffer, Larry K., Jefferson City
Stephenson, Hugh E., Columbia
Stewart, W. B., Columbia
Stoy, Robert P., Columbia
Stuart, Byron M., Boonville
Summers, Joseph S., Jr., Jefferson City
Sydow, Henry A., Fulton
Tanner, Robert H., Jefferson City
Terry, Boyd E., Columbia
Thomas, Robert M., Columbia
Van Vranken, E. E., Jefferson City
Wankum, Robert J., Jefferson City
Washburn, J. Loren, Versailles
Watts, Clark, Columbia
Werth, Joseph A., Jefferson City
White, Joseph M., Columbia
Wilson, George P., Columbia
Yarbro, J. W., Columbia

## Sixth Councilor District—33

Boydston, Wayne, Odessa
Boydston, Catherine, Odessa
Camphell, Albert J., Sedalia
Edwards, David R., Sedalia
Eklund, A. W., Pleasant Hill
Erickson, H. John, Sedalia

lass, R. L., Sedalia
oldberg, Isadore, Braymer
ansen, Arthur L., Butler
ollingsworth, Ray S., Clinton
ohnson, C. S., Warrensburg
ones, Edward S., Harrisonville
ones, Keith D., Warrensburg
elling, Jordan, Waverly
ing, Richard H., Clinton
nipschild, B. F., Marshall
aHue, William C., Lexington
usk, Charles A., Butler
cCorkle, E. Lee, Marshall
agee, Robert L., El Dorado Springs
Maxson, T. Reed, Warrensburg
Meyer, Jerry L., Concordia
Mou, Bin, Nevada
Pascoe, James J., Nevada
Pearse, Roy W., Nevada
Ragland, Jerry, Warrensburg
Riley, Charles T., Richmond
Stockwood, R. C., Sedalia
Torontow, John, Nevada
Weltscheff, Christo, Windsor
Wheeler, Robert L., Harrisonville
Worley, Charles A., Sweet Springs
Wray, Rolla B., Nevada

## Seventh Councilor District—183

ndrus, Bailey, Kansas City
rsenovic, Alexandar, Gladstone
shby, Jennifer, Kansas City
sher, A. Graham, Shawnee Mission, Kan.
aer, A. J., Kansas City
ailey, Hugh R., Kansas City
arelli, Pat A., Kansas City
auer, Lafe W., Prairie Village, Kan.
eck, Calvin E., Kansas City
ecker, Richard R., Kansas City
ehrends, Steven H., Raytown
ickley, James E., Kansas City
iery, Richard, Kansas City
iggs, Alfred D., Kansas City
lack, Thomas C., Jr., Kansas City
ordy, Marvin, Kansas City
otwin, Arnold E., Kansas City
oylan, Peter C., Kansas City
rick, Jeffrey, Kansas City
rown, Robert S., Kansas City
rumm, Lawrence W., Kansas City
rumer, Robert E., Kansas City
ryant, T. J., Kansas City
uchanan, Barbara, Kansas City
uie, Bruce R., Kansas City
uhler, Victor B., Kansas City
uckner, Robert C., Kansas City
affrey, Raymond J., Kansas City
alovich, Emery R., Kansas City
ampbell, John G., Kansas City
arlson, Hjalmar E., Kansas City
aruso, Alfred A., Kansas City
ase, William F., Kansas City
ashman, John W., Kansas City
haudhary, M. Asghar, Kansas City
hernoff, Selhert G., Kansas City
hilds, Richard M., Kansas City
lark, Granville E., Kansas City
lark, I. H., Kansas City
lough, Charles A., Kansas City
offey, Ralph R., Kansas City
offin, Theodore, Kansas City
olglazier, Mary C., Kansas City
ortner, Mary C., Kansas City
otton, Thomas, Kansas City
row, Martin L., Kansas City
urts, Calvin J., Kansas City
ixon, G. David, Leawood, Kan.
lahal, L. J., Independence
omann, Darrel D., Springfield
rake, Roy F., Kansas City
owney, James W., Kansas City
wyer, Frank X., Kansas City
lliott, R. Glenn, Kansas City
ngelmann, C. E., Kansas City
ngleman, Reinhold, Kansas City
ricsson, Samuel E. F., Kansas City
vans, Lawrence L., Kansas City
verett, James E., Kansas City
airchild, Robert C., Kansas City
eist, George V., Kansas City
eist, William E., Kansas City
orman, Louis H., Kansas City
orsythe, Robert W., Kansas City
ranklin, Curtis U., Jr., Kansas City
reeman, Jerry, Kansas City
ritzlen, Thomas J., Kansas City
uhrman, Donald, Kansas City
ermann, Donald R., Kansas City
oldman, Stanley, Kansas City
raham, Patrick, Kansas City
raham, Wallace H., Kansas City
Griffith, John A., Kansas City
Guastello, Mario, Kansas City
Gutek, E. Philip, Kansas City
Haight, J. Max, Kansas City
Hall, John C., Kansas City
Hannas, R. R., Kansas City
Hartwig, F. H., Kansas City
Herman, Edwin M., Kansas City
Hickerson, William H., Independence
Higgins, Ronald A., Kansas City
Hirsch, Joe E., Kansas City
Hoadly, William D., Kansas City
Hoeper, Sam D., Grandview
Hollinger, L. A., Kansas City
Hollweg, Kenneth C., Kansas City
Hughes, Mike, Kansas City
Hungate, Carroll P., Kansas City
Hunkeler, John D., Kansas City
Hutson, Bruce, Lee's Summit
Hyde, L. L. "Fred," Kansas City
Jacobs, Morton, Kansas City
Johnson, Dallas A., Kansas City
Jonas, Harry S., Kansas City
Kaul, Philip G., Shawnee Mission, Kan.
Kayanan, Jose C., Kansas City
Kelling, Douglas, Overland Park, Kan.
Kendall, Forrest H., Kansas City
Kernodle, Jeff D., Kansas City
Kerr, H. Harper, Kansas City
Knoch, H. Kermit, Kansas City
Koontz, Paul, Kansas City
Kyger, John, Independence
Lally, James J., Kansas City
Lee, King Y., Kansas City
Leibsohn, Joel, Independence
Levey, Harry B., Kansas City
Lewis, Revis C., Kansas City
Lichtor, Joseph, Kansas City
Linville, Howard E., Kansas City
Long, Stacy, Kansas City
Lyddon, H. R., Kansas City
McCanse, Andrew, Kansas City
McDonald, Herbert L., Kansas City
McIntyre, John D., Kansas City
McIntosh, Donald E., Kansas City
McKeel, Thomas B., Kansas City
McNabney, W. Kendall, Kansas City
MacInnish, Florence E., Kansas City
Mangum, William, Kansas City
Marks, M. I., Kansas City
Mason, Wayne E., Kansas City
Masucci, Joseph, Kansas City
Medlicott, William J., Kansas City
Miller, Gerald L., Kansas City
Morgan, David B., Kansas City
Murphy, Robert J., Kansas City
Nohack, Richardson K., Kansas City
Newman, Robert L., Kansas City
O'Hearne, John, Kansas City
Ozar, Milton B., Kansas City
Petit, Carl A., Kansas City
Piegergerdes, Larry, Kansas City
Place, Craig, Shawnee Mission, Kan.
Potts, Donald A., Independence
Pryor, H. Joe, Kansas City
Rau, Jerold M., Kansas City
Riekhof, Paul L., Prairie Village, Kan.
Robinett, Wade V., Kansas City
Sabates, Felix N., Kansas City
Saferstein, Lester, Kansas City
Sanders, Donald C., Kansas City
Sauer, Gordon C., Kansas City
Schafermeyer, Robert W., Independence
Schottman, G. W., Kansas City
Seiden, Gerald, Kansas City
Sheahon, John A., Raytown
Shelden, Russell D., Kansas City
Siegel, Carl D., Kansas City
Slankard, J. Edward, Kansas City
Slickman, R. A., Kansas City
Sneid, Philip, Kansas City
Spalding, Wilber B., Kansas City
Stacey, W. R., Independence
Stelmach, W. Jack, Kansas City
Stewart, Harry A., Kansas City
Suddarth, Sterling, Kansas City
Thorne, Ben J., Leawood, Kan.
Throne, E. M., Overland Park, Kan.
Tokrisna, A., Independence
Trowbridge, B. C., Kansas City
Tuohy, G. F., Kansas City
Valins, Eugene, Kansas City
Van Buskirk, William C., Kansas City
Volk, George E., Kansas City
Wade, Frederick E., Kansas City
Waeckerle, Joseph F., Kansas City
Wall, Harry C., Kansas City
Whitaker, James H., Kansas City
White, Charles H., Prairie Village, Kan.
White, James S., Kansas City
Whittaker, C. Keith, Kansas City
Williams, George P., Kansas City
Williams, R. Dean, Kansas City
Willoughby, James W., Kansas City
Woods, S. Dwight, Kansas City
Wu, William Q., Kansas City
Wurster, Jerry B., Kansas City
Youll, Donald, Kansas City
Youmans, R. A., Prairie Village, Kan.
Youngblood, James P., Kansas City
Ziemiansk, Matthew C., Overland Park, Kan.

## Eighth Councilor District—70

Al-Shathir, S., Joplin
Anderson, Paul B., Neosho
Ash, C. J., Springfield
Ashley, Thomas E., Springfield
Barnes, L. G., Neosho
Benson, Ron, Springfield
Betz, Richard, Neosho
Bowers, John W., Springfield
Burkey, Jordan W., Springfield
Cain, Alvin R., Lamar
Christianson, Charles S., Mt. Vernon
Cook, Jim, Springfield
Corry, Frank, Springfield
Cowley, Ray G., Mt. Vernon
Esparrago, F. R., Monett
Esther, John R., Joplin
Ferguson, John P., Springfield
Ferrell, Thomas E., Springfield
Gaston, Sam L., Joplin
Gentry, Michael, Springfield
German, Walter A., Springfield
Glover, Kenneth, Kansas City
Griffin, Evelyn, Buffalo
Griffin, O. A., Buffalo
Gutzmer, Ernest, Springfield
Gwin, Edward, Springfield
Hall, David W., Rogersville
H'Doubler, F. T., Springfield
H'Doubler, Peter B., Springfield
Hellman, Duane C., Springfield
Huewe, Douglas A., Springfield
Isaac, Anita M., Springfield
Ishell, Charles H., Carthage
Ivy, H. B., Springfield
Johnson, Warford B., II, Springfield
Lockhart, Charles E., Springfield
Lorenc, Ernest, Springfield
Lurie, Hal, Springfield
McAlhany, Howard J., Springfield
McCraw, Doyle, Bolivar
McNeel, Lee A., Jr., Greenfield
Macdonnell, Thomas M., Marshfield
Manalo, Gil B., Jr., Carthage
Occeno, Victor, Monett
Olive, G. C., Neosho
Paddock, George, Springfield
Pence, F. Wendell, Carthage
Penninger, William, Springfield
Peterson, Stanley S., Springfield
Pottenger, L. Kenneth, Joplin
Quinn, Paul S., Springfield
Roberts, Howard, Joplin
Shelton, Wayne, Willard
Simpson, Emerson L., Springfield
Singleton, M. A., Joplin
Spalding, D. L., Springfield
Sweeney, Thomas, Springfield
Tendai, M. M., Springfield
Tombridge, Thomas L., Springfield
Turfboer, Robert, Joplin
Vensel, Lee H., Springfield
Walker, William M., Springfield
Whitlock, C. C., Springfield
Willcoxon, Robert, Joplin
Winsky, Arlen D., Springfield
Wittmer, S. C., Springfield
Wolf, Marion L., Springfield
Wood, George H., Carthage
Wooldridge, Wilfred E., Springfield
Wyrsch, Leo M., Springfield

## Ninth Councilor District—11

Bhati, Deo K., Salem
Bukstein, M. J., Hannibal
Comer, J. Russell, New London
Froelich, Rae W., Lebanon
Grannemann, H. Neal, Rolla
Marti, Larry B., Rolla
Morgan, W. T., Jr., West Plains
Slahorek, George J., Waynesville
Spears, Joe, Cabool
Stricker, E. A., St. James
Wall, Joe A., Houston

## Tenth Councilor District—28

Burford, Edwin K., Cape Girardeau
Chapman, Jean A., Cape Girardeau
Chastain, William, Liberty
Cozean, Charles H., Cape Girardeau
Farmer, Norma D., Farmington
Frazier, R. L., Charleston
Hansbrough, E. T., Poplar Bluff
Heeh, Max A., Sikeston
Holcomb, John K., Cape Girardeau
Huckstep, R. A., Farmington
Hunt, Robert, Cape Girardeau
Jung, J. Marshall, Cape Girardeau
Kandalaft, Faud H., Dexter
Kasten, Melvin C., Cape Girardeau
Koldys, Kenneth W., Cape Girardeau
Ladyman, George, Poplar Bluff
Lestmann, Henry, Fairdealing
McDonald, E. F., Jackson
Masters, Ed, Sikeston
Pontillas, Job B., Perryville
Rapp, Harold B., Cape Girardeau
Ritter, Carl F., Cape Girardeau
Ritter, Raymond A., Cape Girardeau
Sargent, John P., Sikeston
Seabaugh, William O. L., Cape Girardeau
Talbert, C. R., Cape Girardeau
Terry, J. W., Cape Giardeau
Turner, Kirby L., Poplar Bluff

### Guest Physicians—58

Beechwood, E. C., Joplin
Bell, C. D., Roca, Nebraska
Benold, Stephen D., Springfield
Benton, B. F., Memphis, Tenn.
Brackmann, Derald E., Los Angeles, Calif.
Bryan, John, Columbia
Collins, John, Palo Alto, Calif.
Cotter, John, St. Louis
Elenbaas, Robert, Kansas City
Everett, E. Dale, Columbia
Feeck, Richard H., Kansas City
Fennewald, Skip, Columbia
Goldstein, Bernard, St. Louis
Golitz, Loren E., Aurora, Colo.
Goran, Michael, Rockyville, Md.
Grebel, Jean, St. Louis
Grigsby, George, Topeka, Kan.
Gunn, Victoria, Columbia
Guyer, Emily W., Columbia
Hall, Russell, Columbia
Harris, Hubert, Topeka, Kans.
Hart, John L., Jefferson City
Hayworth, Frank O., Omaha, Neb.
Hu, K. Ken, St. Louis
Hunter, Robert B., Sedro Woolley, Wash.
Jones, Robert S., Columbia
Kerber, Richard E., Iowa City, Ia.
Kottke, F. J., Minneapolis, Minn.
Kretzschmar, Robert M., Iowa City, Ia.
Kumar, Adarsh A., Springfield
Laibson, Peter R., Philadelphia, Pa.
Lardizabal, Jose M., Bloomfield, Ind.
Lurie, James, Seattle, Wash.
Lytton, George J., Hastings, Neb.
McKusick, Kenneth, Boston, Mass.
Matthewson, Hugh S., Shawnee Mission, Kan.
Mead, Beverley, Omaha, Neb.
Medearis, Arnold L., Kansas City
Melia, B., Prairie Village, Kan.
Mendiones, Marlene, Wichita, Kan.
Morgan, Edward B., St. Louis
Neuhauser, Irene, Chicago, Ill.
Osness, Wayne, Lawrence, Kan.
Phillips, Thomas P., Merriam, Kan.
Pitts, Ronald L., Leawood, Kan.
Schifrin, Barry S., Los Angeles, Calif.
Schoenen, Robert L., Jefferson City
Schotland, Edward, Kansas City, Kan.
Sisk, Clark, St. Louis
Smith, Clyde M., Liberty
Smith, Jean C., Columbia
Stechschulte, Daniel J., Kansas City, Kan.
Wasserman, Alan S., Kansas City
Weber, Wallace N., Hays, Kan.
West, Comer, Kansas City, Kan.
Whitley, Douglas M., Overland Park, Kan.
Woetmann, R. T., Shawnee Mission, Kan.
Young, Harry B., Kirksville

There were 639 members, 58 guest physicians, 117 exhibitors, 182 MSMA Auxiliary, 84 guests and 20 staff members. Total registration was 1,100.

## 120TH ANNUAL SESSION EXHIBITORS

American Medical Facilities Corporation, Maryland Heights
Bio-Science Laboratories, St. Louis
Blue Cross-Blue Shield of Kansas City, Kansas City
Boehringer Ingelheim Ltd., Elmsford, N. Y.
Bristol Laboratories, Syracuse, N. Y.
Encyclopaedia Britannica, Chicago, Ill.
Fred S. James of Missouri, Inc., Kansas City
Johnson & Johnson, Dermatological Division, New Brunswick, N. J.
Johnston's, Inc., Shawnee, Kan.
The Key Company, St. Louis
McNeil Laboratories, Inc., Fort Washington, Pa.
Medical Defense Associates, Ltd., Springfield
The Medical Protective Company, Fort Wayne, Ind.
Meyer Laboratories, Inc., Fort Lauderdale, Fla.
Missouri Cancer Programs, Columbia
MSMA/MOMEDICO, Jefferson City
Munns Medical Supply Company, Topeka, Kan.
Organon Pharmaceuticals, West Orange, N. J.
Rowell Laboratories, Inc., Baudette, Minn.
R. Rowland & Company, Inc., St. Louis
W. B. Saunders Company, Philadelphia, Pa.
Searle Laboratories, Chicago, Ill.
Smith Kline & French Laboratories, Philadelphia, Pa.
Social Security Administration, Bureau of Disability Insurance, Kansas City
Southwestern Bell Telephone Company, Kansas City
Stuart Pharmaceuticals, Wilmington, Del.
Syntex Laboratories, Inc., Palo Alto, Calif.
United Medical Equipment Company, Kansas City
United States Air Force Medical Recruiting, Kansas City
Vitalograph Medical Instrumentation, Lenexa, Kan.
Wallace Laboratories, Cranbury, N. J.
Wyeth Laboratories, Philadelphia, Pa.

In lieu of Exhibits, the following firms made cash donations to assist in the sponsorship of Scientific Sessions.

Ciba Pharmaceutical Company, Summit, N. J.
Eli Lilly and Company, Indianapolis, Ind.
Geigy Pharmaceuticals, Summit, N. J.
Merck Sharp & Dohme, West Point, Pa.
A. H. Robins Company, Inc., Richmond, Va.

MISSOURI STATE MEDICAL FOUNDATION

*Give now to your student loan fund!*
*Send A Generous Contribution To*
**MISSOURI STATE MEDICAL FOUNDATION**
P.O. Box 1028, Jefferson City, Missouri 65102

# Missouri State Medical Foundation

## inutes of the Annual Meeting
## rown Center Hotel, Kansas City
## pril 14, 1978

The meeting was called to order at 3:30 PM by Albert . Cross, M.D., president. A quorum was declared present.

Dr. Cross stated that the minutes of the 1977 Annual eeting in St. Louis on April 15 had been published in the ly 1, 1977 issue of MISSOURI MEDICINE. The minutes were pproved as published.

Dr. Cross referred to the Report on the MSMF for 1977-978 which reports the activities of the Foundation since its ception in 1960. The report is as follows:

### EPORT OF THE MISSOURI STATE MEDICAL FOUNDATION— 1977-1978

During the 119th Annual Session held at Stouffer's Riverfront owers in St. Louis, the House of Delegates approved continuation of e annual assessment at $10 per year for active members for the ars 1978, 1979 and 1980.

Since the inception of the Foundation in September, 1960, Mis- uri physicians have approved funds for 1,598 loans to 571 different edical students for a total of $981,960.00. Below you will find a fact eet for the Missouri State Medical Foundation (see page 366).

We would like to call your attention to the volume of loan appli- tions for the year 1977 amounting to a total of 157 applications ith a total borrowed by students of $101,420 as compared with 2 loans in 1968 amounting to $37,750. Also during 1977, there has een an increased number of physicians who have repaid their loans full. Due to the effect of inflation on medical education, the re- uest for financial aid will continue to outdistance funds available.

As approved by the Board of Trustees and the MSMA Council, e Foundation's share of the overhead expenses totaled $6,600 for e year and $2,188.67, which included professional fees, stationery d other related expenses.

We would like to express sincere appreciation to Missouri physicians d to the MSMA Auxiliary for their continued support of the oundation to provide financial assistance to needy men and women ursuing a medical career.

Dr. Cross directed attention to the financial statement of e Foundation as of Dec. 31, 1977, which reads as follows:

## FINANCIAL STATEMENT

## MISSOURI STATE MEDICAL FOUNDATION DECEMBER 31, 1977

LENNERTSON & COMPANY
CERTIFIED PUBLIC ACCOUNTANTS
ST. LOUIS, MISSOURI 63144

January 27, 1978

issouri State Medical Foundation
13 Madison
efferson City, Missouri 65101

entlemen,

We have examined the balance sheet of Missouri State Medical oundation as of December 31, 1977, and the related statements of upport, revenue and expenses, and changes in fund balances for he year then ended. Our examination was made in accordance with enerally accepted auditing standards, and accordingly included such ests of the accounting records and such other auditing procedures s we considered necessary in the circumstances.

In our opinion, the aforementioned statements present fairly the ssets and liabilities of Missouri State Medical Foundation at De- ember 31, 1977, arising from cash transactions, and the revenues ollected and expenditures made by it during the year ended, on a asis consistent with that of the preceding year.

Yours very truly,
LENNERTSON AND COMPANY

EXHIBIT A

### Missouri State Medical Foundation
### Balance Sheet (Cash Basis), December 31, 1977

*Assets*

| | | |
|---|---|---|
| *ash* | | |
| hecking Account | $ 48,775.57 | |
| avings Account #05842586 | 48,734.47 | |
| Total Cash | | $ 97,510.04 |
| Loans Receivable from Medical Students | $675,269.38 | |
| Less Reserve for Loses | 13,287.61 | 661,981.77 |
| | | $759,491.81 |

*Fund Reserve*

| | | |
|---|---|---|
| *Balance January 1, 1977* | | $713,544.93 |
| *Additions for the Year 1977* | | |
| Interest on Student Loans | $ 9,315.49 | |
| Interest on Bank Deposits | 2,362.84 | |
| Contributions (detailed below) | 3,406.24 | |
| Assessment of Members, Active $10.00 | 43,020.00 | 58,104.57 |
| | | $771,649.50 |
| *Less Expenses for the Year 1977* | | |
| Administrative Services | $ 6,600.00 | |
| Professional Fees | 1,561.23 | |
| Printing, Meeting and Misc. Expense | 627.44 | |
| Provision for Losses on Student Loans | 3,369.02 | 12,157.69 |
| | | $759,491.81 |

*Contributions*

| | |
|---|---|
| Miller's Medical Arts Pharmacy | $ 100.00 |
| Missouri State Medical Association Auxiliary | 755.62 |
| Clay County Medical Association Auxiliary | 424.12 |
| Jackson County Medical Society Auxiliary | 100.00 |
| St. Charles-Lincoln County Auxiliary | 450.00 |
| Subtotal | $ 1,829.74 |
| Contributions under $100 each | 1,576.50 |
| Total Contributions | $ 3,406.24 |

### Missouri State Medical Foundation
### Notes to Financial Statements
### December 31, 1977

1. *Income.* Accrued interest on outstanding loans at December 31, 1977 amounted to $46,462.04 and is not included in the loan balance in Exhibit A.

2. *Student Loans.* Summary of Loans Receivable.

| | |
|---|---|
| Loans Receivable January 1, 1977 | $625,318.98 |
| Uncollectible Loan Reinstated | 670.49 |
| | $625,989.47 |
| Loans made during the year | 101,420.00 |
| | $727,409.47 |
| Less Loan Repayments | 52,140.09 |
| Loans Receivable December 31, 1977 | $675,269.38 |

3. *Reserve for Losses.* This reserve is carried to offset uncollectible loans and to charge off student loan balances in the event of death of the borrower.

| | | |
|---|---|---|
| Balance on Hand, Dec. 13, 1977 | $48,775.57 | |
| Income for January, 1978 | 11,663.93 | |
| | | $60,439.50 |
| January Loans 1978 (Spring) (Number of Loans—56) | | 41,500.00 |
| | | $18,939.50 |
| Cash on Hand Jan. 1, 1978 | | |
| Checking Account | $18,939.50 | |
| Savings Account | 48,734.47 | |
| Total Cash on Hand Jan. 31, 1978 | | $67,673.97 |

Dr. Cross noted that a contribution of $500 from Dr. Max S. Franklin of St. Louis and a contribution of $100 from the Boonville Medical Group were not reported in the financial statement. The financial statement was approved as corrected.

Dr. Mary K. McCaffree, chairman of the Nominating Committee, presented the name of Dr. Kenneth C. Hollweg to be reelected for a five-year term of the Board of Trustees. Dr. Hollweg was unanimously elected.

The ex-officio member of the Board will be Dr. John N. Martin, the incoming president of the Missouri State Medical Association.

The President then called for introduction of new business. There being none, he announced that a meeting of the MSMF Board of Trustees would immediately follow the Annual Meeting.

The meeting was adjourned.

FACT SHEET—MISSOURI STATE MEDICAL FOUNDATION

| Year | Contributions | Assessment | Loans Made | Repayments<br>INTEREST | PRINCI |
|---|---|---|---|---|---|
| 1961 | $ 76,750.00 | | $ 44,430.00 | | |
| 1962 | 6,427.00 | | 30,025.00 | | |
| 1963 | 11,792.50 | $ 24,333.41 | 28,440.00 | $ 113.66 | $ 1,12 |
| Aux. | 12,081.32 | | 8,050.00 | | |
| 1964 | 8,213.00 | 24,854.85 | 32,575.00 | 675.88 | 5,70 |
| 1965 | 14,465.00 | 24,500.00 | 32,400.00 | 1,364.54 | 5,24 |
| 1966 | 9,060.00 | 26,956.86 | 50,650.00 | 1,280.71 | 12,60 |
| 1967 | 3,214.50 | 25,968.48 | 38,325.00 | 1,033.45 | 7,33 |
| 1968 | 2,106.50 | 26,358.42 | 37,750.00 | 1,739.70 | 8,40 |
| 1969 | 2,675.50 | 34,564.15 | 41,070.00 | 1,571.67 | 8,84 |
| 1970 | 4,328.50 | 36,485.83 | 52,800.00 | 4,026.78 | 20,69 |
| 1971 | 2,987.87 | 36,752.50 | 54,725.00 | 1,713.17 | 14,83 |
| 1972 | 5,153.24 | 37,422.50 | 70,750.00 | 5,154.57 | 18,21 |
| 1973 | 1,129.00 | 39,265.00 | 77,950.00 | 2,612.79 | 11,21 |
| 1974 | 2,777.00 | 40,050.00 | 79,000.00 | 11,648.47 | 34,09 |
| 1975 | 2,245.00 | 41,025.00 | 90,250.00 | 11,508.70 | 44,95 |
| 1976 | 14,834.57<br>(Estate)<br>10,000.00 | 41,435.00 | 111,350.00 | 11,896.66 | 49,77 |
| 1977 | 3,406.24 | 43,020.00 | 101,420.00 | 9,315.49 | 52,14 |
| Totals | $183,646.74 | $502,992.00 | $981,960.00 | $65,656.24 | $295,19 |

## Minutes of MSMF Board of Trustees Meeting Crown Center Hotel, Kansas City Friday, April 14, 1978

The meeting of the Board of Trustees of the Missouri State Medical Foundation was called to order by Albert D. Cross, M.D., president, immediately after the adjournment of the annual meeting.

On behalf of the Nominating Committee, Dr. Mary K. McCaffree, chairman, nominated the following slate of officers for one-year terms.

President—Albert D. Cross, M.D., Trenton

Vice-President—Miles C. Whitener, M.D., St. Louis Cou ty

Secretary-Treasurer—Robert H. Tanner, M.D., Jeffers City

Assistant Secretary—Ron Ellison, MSMA Staff, Jeffers City

It was moved that these officers be elected by acclam tion. The motion carried.

Mr. Ellison referred to one entry in the financial stateme that related to legal assistance in securing loan paymen He reported that collections generally are excellent but th assistance was helpful in a few instances.

There being no further business, the meeting was a journed.

Remember These Dates!

*The 121st*

ANNUAL SESSION

of the

Missouri State Medical Association

will be held on

APRIL 19-22, 1979

Chase-Park Plaza St. Louis

# The Council Reports

Meeting of April 16, 1978

Crown Center Hotel, Kansas City

Dr. John N. Martin, President, and Dr. Richard V. Brad-y, Chairman, presided at the meeting at Crown Center otel in Kansas City. Those present were Drs. Howard Mc-lhany, Springfield; Andrew McCanse, Kansas City; John Matthews, Jefferson City; E. T. Hansbrough, Poplar Bluff; ichard Hedges, Excelsior Springs; John Walterscheid, Han-bal; Louis P. Hetlage, Troy; H. Peter Ekern, Mexico; R. hn Torontow, Nevada; I. H. Clark, Kansas City; Walter erman, Springfield; Donald Fakhoury, N. Kansas City; ichard Fallon, St. Louis; Mary McCaffree, Jefferson City; oy W. Pearse, Nevada; William C. Allen, Columbia; essrs. Allen Smith, Kansas City; G. Ronald Garrett, St. ouis; Roger Weis, Kansas City; Royal O. Cooper, C. C. varens, Ronald Ellison, Donald Wilson, John Kuebler and cky Hankins, Staff.

### ELECTION OF OFFICERS

President Martin opened the organizational meeting of e Council and introduced Dr. Irving H. Clark, Kansas ity as the new Councilor from the 7th District and Dr. onald Fakhoury of N. Kansas City as First Vice-President.

Dr. Richard V. Bradley was elected Chairman of the ouncil and, thereby, became the presiding officer.

Dr. John I. Matthews was elected as Secretary of the SMA and Dr. James M. Stokes as Treasurer. Dr. Eugene . Hansbrough was elected as Vice-Chairman of the Coun-l.

### BUDGET AND FINANCE COMMITTEE

Chairman Bradley named the following Budget and Finance Committee members for 1978-79: Dr. James M. Stokes, Chairman; Drs. Martin, McCanse, Bradley, Hansbrough and Clark.

### NEXT COUNCIL MEETING

The next meeting of the Council will be held on June 2-3, 1978 at Holiday Inn, Lake of the Ozarks.

### REPORT OF THE EXECUTIVE SECRETARY

Mr. Cooper asked for Council approval for the establishment of a small MSMA transfer account at Boatmen's National Bank to simplify the procedure for reimbursement to Boatmen's on the MOMEDICO loan. On motion, duly seconded, the above account was approved.

### RESOLUTION #10

Dr. Bradley asked for Council suggestions regarding implementation of Resolution #10 which directs the Council of the MSMA to bring forth a plan or plans of equitable, democratic representation on the Council to be presented at the Fall Meeting of the House of Delegates for action of the House at that time.

Following brief discussion, it was moved and seconded that the Committee on Planning be requested to meet with the Council on June 2 to begin working on a plan or plans to be presented to the House at the Fall interim session. The motion carried.

The meeting was adjourned.

**Dr. Richard V. Bradley, Third District, was elected chair-an and Dr. Eugene T. Hansbrough, Tenth District, was ected vice-chairman of the MSMA Council at the Meeting hich followed the 120th Annual Session.**

**Dr. Mary J. McCaffree, Fifth District vice-councilor, and Dr. Richard Fallon, Third District vice-councilor, attend the post-convention Council meeting. Both were reelected for the coming year.**

# New Members

**James P. Anthony**, M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Anthony is a native of St. Louis, received his preliminary education at Drury College and the University of Missouri-Kansas City School of Dentistry and his M.D. degree at the University of Missouri-Kansas City in 1973. He specializes in diagnostic radiology.

**Jesus Arcelona**, M.D., 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis Medical Society. Dr. Arcelona is a native of the Philippines. He received his M.D. degree at Far Eastern University in 1958. He is in general practice.

**Dilip Banerjee**, M.D., 800 E. 5th, Washington 63090, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Banerjee is a native of Bundwar, India, received his preliminary education in India and his M.D. degree at Calcutta Medical College in 1968. He specializes in internal medicine and cardiology.

**Spomenko Bauer**, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Bauer is a native of Yugoslavia, received his preliminary education in Yugoslavia and his M.D. degree at the Faculty of Medicine of Zagreb in 1968. He specializes in anesthesiology.

**Robert L. Bowser**, M.D., 2601 Kendallwood Parkway, Kansas City 64119, has become a member of Clay County Medical Society. Dr. Bowser is a native of Kansas City, Kan., received his preliminary education at Ball State University and his M.D. degree at the University of Kansas in 1974. He specializes in anesthesiology.

**Nathan D. Burroughs**, M.D., 2700 Hospital Dr., North Kansas City 64116, has become a member of Clay County Medical Society. Dr. Burroughs is a native of San Francisco, Cal., received his prelim nary education at Kansas State University and h M.D. degree at the University of Kansas in 197 He specializes in otorhinolaryngology.

**Charles F. Butler**, M.D., 1443 N. Robberson, Suit 303, Springfield 65802, has become a member Greene County Medical Society. Dr. Butler is a na tive of Crockett, Tex., received his preliminary edu cation at the University of Texas-Austin and h M.D. degree at the University of Texas-Housto in 1974. He specializes in

**Stuart Chen**, M.D., University of Missouri Schoo of Medicine, 2411 Holmes, Kansas City 64108, ha become a member of Jackson County Medical So ciety. Dr. Chen is a native of Taiwan, received h preliminary education at National Taiwan Unive sity and his M.D. degree at National Taiwan Un versity in 1959. He specializes in internal medicin

**David J. Clark**, M.D., Surgical Clinic, No. 1 Doctors Park, Cape Girardeau 63701, has becom a member of Cape Girardeau County Medical So ciety. Dr. Clark is a native of St. Louis, receive his preliminary education at the University of Mis souri-Columbia and his M.D. degree at the Unive sity of Missouri-Columbia in 1971. He specializes i general surgery.

**J. Michael Conoyer**, M.D., Barnes Hospital Plaz St. Louis 63110, has become a member of St. Lou Medical Society. Dr. Conoyer is a native of S Charles, received his preliminary education Southeast Missouri State College and his M.D degree at Vanderbilt University in 1975. He specia izes in otorhinolaryngology.

**Carey M. Delcau**, M.D., 3535 S. Jefferson, S Louis 63118, has become a member of St. Lou Medical Society. Dr. Delcau is a native of Ne York, N. Y., received his preliminary education the University of Rochester and his M.D. degree St. Louis University in 1974. He specializes in famil practice.

# In Memoriam

**Paul Lowell**, M.D., 4742 Liberty, Kansas City 64112, a graduate of University of Kansas, 1936; member Jackson County Medical Society; age 76; died May 18, 1978.

**Frederick O. Schwartz**, M.D., 15 Tealwood Ave., Creve Coeur 63141, a graduate of Washington University, 1910; member St. Louis Medical So ciety; age 90; died May 6, 1978.

**Dominic J. Verda**, M.D., Lister Bldg., Ste. 10 4500 Olive, St. Louis 63108, a graduate of John Hopkins University, 1935; member St. Louis Me ical Society; age 73; died May 16, 1978.

MEDICAL SUPERINTENDENTS

The Missouri Department of Mental Health is seeking superintendents for a large and a medium size state hospital at St. Louis State Hospital, St. Louis, Missouri, and Farmington State Hospital, Farmington, Missouri, respectively. These are administrative and medical positions involving treatment of patients and hospital operations for professional and hospital support staffs.

Qualifications include certification or proof of eligibility for certification in psychiatry by the American Board of Psychiatry and Neurology or completion of five-year psychiatric career residency program of the Missouri Department of Mental Health, supplemented by three years of clinical experience in psychiatry in an approved hospital or clinic for the mentally ill or in an institution for the mentally retarded, of which one year must have been in a supervisory or administrative capacity. Substitution for these qualifications will be given to a valid certificate issued by the American Psychiatric Association Committee on Certification of Mental Hospital Administrators or possession of a specialty board certificate issued by the American Medical Association or American Osteopathic Association, supplemented by five years of administrative experience as a Clinical Director, Medical Director, Assistant Medical Director or Chief of Staff at an approved hospital or center serving mentally ill, developmentally disabled or substance abuse patients. Qualifying certificates issued by other countries may be acceptable on an individual basis. Applicants must be able to secure a license to practice medicine in the state of Missouri. Annual salary range is $48,127 to $55,422, plus housing.

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t of value in treatment of psychotic patients; should not be employed in of appropriate treatment. When using oral form adjunctively in convule disorders, possibility of increase in frequency and/or severity of grand l seizures may require increase in dosage of standard anticonvulsant dication; abrupt withdrawal in such cases may be associated with temary increase in frequency and/or severity of seizures.

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minister with extreme care to elderly, very ill, those with limited pulmoy reserve because of possibility of apnea and/or cardiac arrest; conmitant use of barbiturates, alcohol or other CNS depressants increases pression with increased risk of apnea; have resuscitative facilities avail- e. When used with narcotic analgesic eliminate or reduce narcotic dos- e at least 1/3, administer in small increments. Should not be administered patients in shock, coma, acute alcoholic intoxication with depression of al signs.

s precipitated tonic status epilepticus in patients treated for petit mal tus or petit mal variant status.

hdrawal symptoms (similar to those with barbiturates, alcohol) have ocred following abrupt discontinuance (convulsions, tremor, abdominal/ scle cramps, vomiting, sweating). Keep addiction-prone individuals der careful surveillance because of predisposition to habituation/ pendence. Not recommended for OB use.

cacy/safety not established in neonates (age 30 days or less); proged CNS depression observed. In children, give slowly (up to 0.25 /kg over 3 minutes) to avoid apnea or prolonged somnolence; can be peated after 15 to 30 minutes. If no relief after third administration, propriate adjunctive therapy is recommended.

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INJECTABLE: Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

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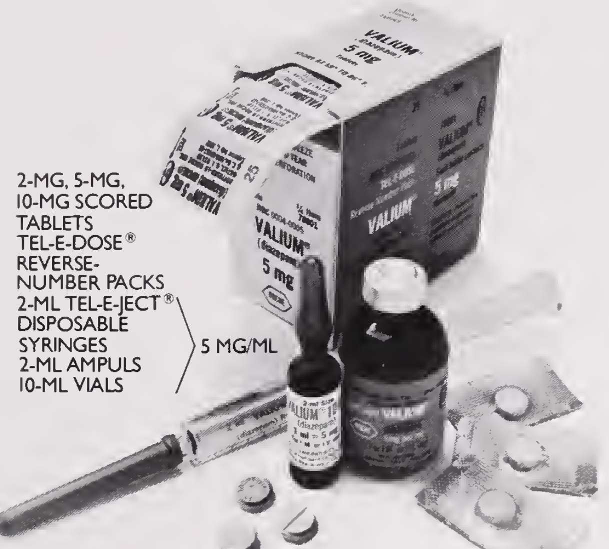

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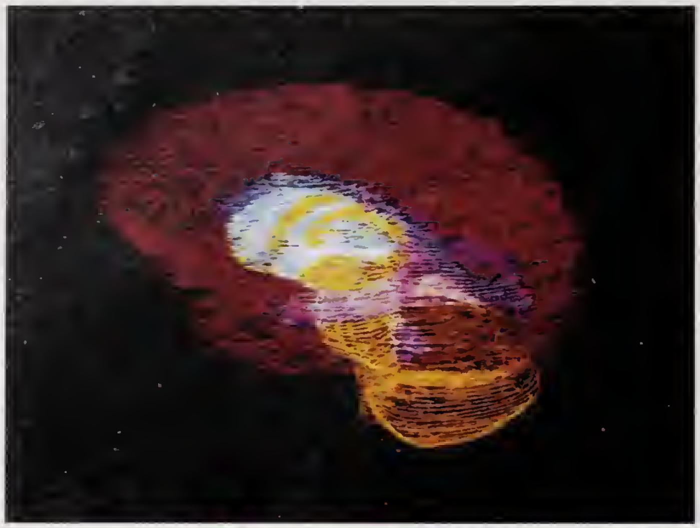

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# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

**AUGUST, 1978**

VOLUME 75, NUMBER 8

## Scientific Articles

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**121st MSMA Annual Session**
**April 19-22, 1979, St. Louis**

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The effectiveness of Valium in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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MDS

# Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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MSMA

# NEWS ROUND - UP

August, 1978

## Public relations workshop to feature Dr. Annis

Final plans for the October MSMA public relations workshop are now being completed.

The institute will be held in conjunction with the meetings of the MSMA Commission on Public Affairs and the Component Society Representatives on October 7-8, 1978, at Tan-Tar-A at the Lake of the Ozarks.

Starting off the program on Saturday afternoon will be Dr. Edward Annis, a past president of the AMA and a member of their Speakers Bureau. Dr. Annis is well known for his radio and television debates with prominent national figures like Senator Hubert Humphrey and labor leader Walter Reuther and his famous Madison Square Garden speech of 1962, when he answered President Kennedy's demand for socialized medical care.

Barbara Chapman, associate director of the AMA Office of Public Relations, will offer suggestions on the basic principles of public relations. Roy Pfautch, president of Civic Service, Inc., a public opinion survey firm, will then discuss electronic media as it relates to public relations.

On Sunday morning, Bob Priddy, news director of the 66-radio station Missouri Network, will address the participants on the media's impression of medicine.

Other topics to be discussed are response public relations, membership communications, and information and services available from the MSMA and AMA.

*Dr. Edward Annis — Many call him "Mr. Medicine."*

Any member who thinks he may be interested in public relations and would like to be a media contact is invited to attend this program. For further information, please complete the accompanying box and mail it to the MSMA. Box 1028, Jefferson City, MO 65102.

**Public Relations Conference**

I am interested in being a media contact for the Missouri State Medical Association. Please send additional information on the conference to be held October 7-8, 1978, at Tan-Tar-A at the Lake of the Ozarks.

Name ________________________

Address ______________________

City _________________________

## 937 physicians qualify for PRA

A total of 937 Missouri physicians qualified for the MSMA-AMA Physician's Recognition Award during the past year.

The Award has become a nationwide standard for the voluntary continuing medical education program. At this time, approximately two-thirds of the physicians in Missouri have direct access to CME activities.

To qualify for the Award, a physician must complete 150 credit hours of CME in three years. Sixty of those hours must be earned in Category I.

After a physician has accumulated the required hours, the application for the PRA is initiated in the MSMA headquarters office. In addition, the MSMA can forward this information to the appropriate medical specialty upon request.

## MMPAC gains 51 new members

In response to the recent solicitation of the Missouri Medical Political Action Committee, 51 physicians and their spouses have become new members of MMPAC/AMPAC.

A total of 24 physicians have joined MMPAC as Regular Members, 5 as Sustaining Members, 9 (with spouses) as Family Members, and 4 spouses have joined as Auxiliary Members.

The new Sustaining Members are: Robert E. Bregant, M.D., *Jefferson City;* L. E. Giffen, D.O., *Jefferson City;* H. Neal Grannemann, M.D., *Rolla;* Patricio C. Avila, M.D., *Hannibal;* and Louis F. Aitken, M.D., *St. Louis.*

## New members appointed to Mental Health Commission

Four new members have been appointed by Governor Teasdale and approved by the Missouri Senate to the State Mental Health Commission.

Three of the new commission members are physicians: Barbara Buchanan, M.D., Kansas City; P. J. Ciccone, M.D., Springfield; and Paul A. Dewald, M.D., St. Louis. The fourth appointee is Marvin J. Cummins, director of the Social Science Institute at Washington University.

These new members join Chairman Norman Tice, St. Louis; Barbara Favazza, M.D., Columbia; and Joe Winters, Kansas City, to make up the seven-member Mental Health Commission.

# AMA seeks nominations for annual medical awards

The American Medical Association is inviting medical societies to consider the submission of nominees for its major annual awards to physicians and non-physicians for their contributions to research, medical practice, medical education, and community service.

Nominations for the Distinguished Service Award, the Citation of a Layman, the Rush Award, and the Scientific Achievement Award will be considered by the Board of Trustees at its October 18-21 meeting. The deadline for receipt of nominations is October 1, 1978.

Nominations for the Sheen, Beaumont, and Goldberger Awards will be considered during the Board's April 12-14, 1979, meeting. The deadline for receipt of nominations is March 1, 1979.

Please contact Mr. Neil Sutherland, Special Assistant to the Executive Vice President, at the AMA headquarters office, if you require any additional information.

### DISTINGUISHED SERVICE AWARD

The Distinguished Service Award may be made to a member of the Association for meritorious services in the science and art of medicine. It consists of a suitable medal, a $2,500 stipend, and a citation selected and approved by the Board of Trustees.

### CITATION FOR A LAYMAN FOR DISTINGUISHED SERVICE

The Citation shall be made to a person not of the medical profession who has contributed to the achievement of the ideals of American medicine by aid and cooperation in the advancement of medical science, medical education or medical care. It consists of a suitable certificate of citation selected and approved by the Board of Trustees.

### BENJAMIN RUSH BICENTENNIAL AWARD FOR CITIZENSHIP AND COMMUNITY SERVICE

The Award consists of a $5,000 stipend made possible by the Sheen Trust, and a commemorative plaque. The recipient must be a citizen of the United States, must possess an M.D. degree or its equivalent, and must have made an outstanding contribution to the community for citizenship and public service above and beyond the call of duty as a practicing physician.

### DOCTOR RODMAN E. SHEEN AND THOMAS G. SHEEN AWARD

The Award consists of a $10,000 cash prize and a commemorative plaque, presented annually to an American physician or physicians in recognition of outstanding contributions in medicine. Candidates must be United States citizens and must possess an M.D. degree. The Award can recognize either a single achievement or an accumulated career of excellence.

### DOCTOR WILLIAM BEAUMONT AWARD IN MEDICINE

The Doctor William Beaumont Award in Medicine provides a $2,500 stipend and a plaque. It was established as an encouragement to younger physicians. Eligible for the Award are physicians 50 years of age or under, who are U.S. citizens and have distinguished themselves in medical science.

### SCIENTIFIC ACHIEVEMENT AWARD

The Scientific Achievement Award is to be given to either a physician or non-physician scientist selected by the Board of Trustees. The Award consists of a gold medallion and a $2,500 stipend. This Award will not necessarily be given annually but only on special occasions in recognition of outstanding work. Physician candidates must be AMA members.

### JOSEPH B. GOLDBERGER AWARD IN CLINICAL NUTRITION

The Award, consisting of a commemorative plaque and $1,000, was established to serve as a stimulus to medical investigators in advancing the frontiers of public and personal health, and to honor physicians who have made important contributions to the knowledge of nutrition. Candidates must be members of the AMA.

# Physicians are invited to meet with FDA Commissioner in St. Louis

Physicians are invited to attend a meeting with Commissioner Donald Kennedy of the Food and Drug Administration on Wednesday, September 13, 1978, from 7:30 p.m. to 11 p.m. at the St. Louis Medical Society, 3839 Lindell Blvd.

The meeting will provide an opportunity for a direct exchange of ideas on new developments and issues with the Commissioner.

Sponsors of the meeting are: Food and Drug Administration; St. Louis Medical Society; St. Louis County Medical Society; Department of Community Medicine, St. Louis University School of Medicine; St. Louis University, School of Nursing & Allied Health Professions; St. Louis Dietetic Association; St. Louis Society of Hospital Pharmacists; Jefferson County Medical Society; St. Louis Federal Executive Board; and Greater St. Louis Veterinary Medical Association.

There is no charge for registration, but pre-registration is encouraged. For further information, please contact Mary Margaret Richardson, Consumer Affairs Officer, at (314) 425-5021, 1114 Market, Room 755, St. Louis, MO 63101.

# Missouri Health Data Corporation is progressing toward its goal

The Missouri Health Data Corporation (MHDC), which has been endorsed by the MSMA, is steadily progressing toward its goal of becoming the non-profit, non-governmental, central health data collection agency for Missouri, said Dr. Francis M. Maple, MHDC's president.

The system started with one hospital on November 1, 1977, and now has over 70 hospitals using its system. The St. Louis area PSRO, CEMPROC, signed with MHDC this year. Thus MHDC is now the data collector for all five PSROs in Missouri.

The MHDC has eliminated the need for the State-run MHDDP system, so the State discontinued its data collection agency on June 30, 1978.

The MHDC Board of Directors recently approved a contract for MHDC to furnish statistical data to the State of Missouri. Because of the Board's concern for confidentiality, the contract states that the State will not receive any patient or physician identification on any data received from MHDC.

# Organization is designed to benefit retired physicians

For those physicians who are retired, about to retire or who want to know how to retire, there is an association designed to meet their needs — the American Retired Physicians Association (ARPA).

Founded three years ago with assistance from the AMA, the ARPA now functions as an independent organization, with the endorsement of the AMA.

Many benefits are available to members — a newsletter which provides financial information, current medical news, retirement lifestyles and medical service opportunities; a Medicare Supplemental Insurance Plan; group travel and a literature resource center.

The annual dues are $20 for M.D.s and $15 for spouses of deceased physicians. For more information, write to the American Retired Physicians Association, 536 North State Street, Chicago, IL 60610.

one of today's trends in oral contraception . . .

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mcg estrogen
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mcg estrogen

Do you have patients currently taking oral contraceptives containing 100 mcg of estrogen for contraception? A switch to a 50 mcg product may be desirable.§

Prospective and retrospective studies indicate a relationship between estrogen doses and serious adverse side effects. ". . . preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism. . ."† The incidence of these side effects decreases as the dosage of estrogen decreases to 50 mcg, as demonstrated in British studies.†

†See Prescribing Information.

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§Serious as well as minor side effects have been reported with the use of oral contraceptives. These include thromboembolic disease. The physician should remain alert to the earliest manifestations of any symptoms of serious disease and discontinue oral contraceptive therapy when appropriate. The physician should be fully aware of the complete Prescribing Information for this product.

See the complete Prescribing Information for this product, a summary of which is on the next page.

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# ORTHO-NOVUM* Tablets

**IMPORTANT NOTE—This information is a BRIEF SUMMARY of the complete prescribing information provided with the product and therefore should not be used as the basis for prescribing the product. This summary was prepared by deleting from the complete prescribing information certain text, tables, and references. The physician should be thoroughly familiar with the complete prescribing information and patient information before prescribing the product.**

**INDICATION: CONTRACEPTION.** The pregnancy rate in women using conventional combination oral contraceptives (containing 35 mcg or more of ethinyl estradiol or 50 mcg or more of mestranol) is generally reported as less than one pregnancy per 100 woman-years of use. Slightly higher rates (somewhat more than one pregnancy per 100 woman-years of use) are reported for some combination products containing 35 mcg or less of ethinyl estradiol, and rates on the order of three pregnancies per 100 woman-years are reported for the progestogen-only oral contraceptives. Table 1 gives ranges of pregnancy rates reported in the literature for other means of contraception. The efficacy of these means of contraception (except the IUD) depends upon the degree of adherence to the method.

**Table 1: Pregnancies Per 100 Women-Years**. IUD, less than 1-6; Diaphragm with spermicidal product (creams or jellies), 2-20; Condom, 3-36; Aerosol foams, 2-29, Jellies and creams, 4-36, Periodic abstinence (rhythm) all types, less than 1-47; 1. Calendar method, 14-47; 2. Temperature method, 1-20; 3. Temperature method—intercourse only in postovulatory phase, less than 1-7; 4. Mucus method, 1-25; No contraception, 60-80. **DOSE-RELATED RISK OF THROMBOEMBOLISM FROM ORAL CONTRACEPTIVES**: Two studies have shown a positive association between the dose of estrogens in oral contraceptives and the risk of thromboembolism. For this reason, it is prudent and in keeping with good principles of therapeutics to minimize exposure to estrogen. The oral contraceptive product prescribed for any given patient should be that product which contains the least amount of estrogen that is compatible with an acceptable pregnancy rate and patient acceptance. It is recommended that new acceptors of oral contraceptives be started on preparations containing .05 mg or less of estrogen. **CONTRAINDICATIONS**: Oral contraceptives should not be used in women with any of the following conditions: 1. Thrombophlebitis or thromboembolic disorders. 2. A past history of deep vein thrombophlebitis or thromboembolic disorders. 3. Cerebral vascular or coronary artery disease. 4. Known or suspected carcinoma of the breast. 5. Known or suspected estrogen-dependent neoplasia. 6. Undiagnosed, abnormal genital bleeding. 7. Known or suspected pregnancy (see WARNINGS, No. 5).

## WARNINGS

**Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.**
**The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.**

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established. Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic. These studies estimate that users of oral contraceptives are 4 to 11 times more likely than nonusers to develop these diseases without evident cause. Overall excess mortality due to pulmonary embolism or stroke is on the order of 1.0 to 3.5 deaths annually per 100,000 users and increases with age. **CEREBROVASCULAR DISORDERS**: In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than in nonusers and the risk of thrombotic stroke was 4.0 to 9.5 times greater in users than in nonusers.

**MYOCARDIAL INFARCTION**: An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported confirming a previously suspected association. These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor. The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group. In terms of relative risk, it has been estimated that oral contraceptive users who do not smoke (smoking is considered a major predisposing condition to myocardial infarction) are about twice as likely to have a fatal myocardial infarction as nonusers who do not smoke. Oral contraceptive users who are also smokers have about a 5-fold increased risk of fatal infarction compared to users who do not smoke, but about a 10-to 12-fold increased risk compared to nonusers who do not smoke. Furthermore, the amount of smoking is also an important factor. In determining the importance of these relative risks, however, the baseline rates for various age groups must be given serious consideration. The importance of other predisposing conditions mentioned above in determining relative and absolute risks has not as yet been quantified; it is quite likely that the same synergistic action exists, but perhaps to a lesser extent. **Risk of Dose**: In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives. Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved. This finding has been confirmed in the United States. Careful epidemiological studies to determine the degree of thromboembolic risk associated with progestogen-only oral contraceptives have not been performed. Cases of thromboembolic disease have been reported in women using these products, and they should not be presumed to be free of excess risk. The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age. Oral contraceptives are, however, an independent risk factor for these events. **ESTIMATE OF EXCESS MORTALITY FROM CIRCULATORY DISEASES**: A large prospective study carried out in the United Kingdom estimated the mortality rate per 100,000 women per year from diseases of the circulatory system for users and nonusers of oral contraceptives according to age, smoking habits, and duration of use. The overall excess death rate annually from circulatory diseases for oral contraceptive users was estimated to be 20 per 100,000 (ages 15-34—5/100,000; ages 35-44—33/100,000; ages 45-49—140/100,000), the risk being concentrated in older women, in those with a long duration of use, and in cigarette smokers. It was not possible, however, to examine the interrelationships of age, smoking, and duration of use, nor to compare the effects of continuous versus intermittent use. Although the study showed a 10-fold increase in death due to circulatory diseases in users for five or more years, all of these deaths occurred in women 35 or older. Until larger numbers of women under 35 with continuous use for five or more years are available, it is not possible to assess the magnitude of the relative risk for this younger age group. This study reports that the increased risk of circulatory diseases may persist after the pill is discontinued. Another study published at the same time confirms a previously reported increase of mortality in pill users from cardiovascular disease. The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception. The estimates of risk of death for each method include the combined risk of the contraceptive method (e.g., thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method. The findings of this analysis are shown in Figure 1 below. The study concluded that the mortality associated with all methods of birth control is low and below that associated with childbirth, with the exception of oral contraceptives in women over 40 who smoke. (The rates given for pill only/smokers for each age group are for smokers as a class. For "heavy" smokers [more than 15 cigarettes a day], the rates given would be about double; for "light" smokers [less than 15 cigarettes a day], about 50 percent.) The mortality associated with oral contraceptive use in nonsmokers over 40 is higher than with any other method of contraception in that age group. The lowest mortality is associated with the condom or diaphragm backed up by early abortion. The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia and especially by cigarette smoking. The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors. The use of oral contraceptives in women in this age group is not recommended. Based on the data currently available, the following chart gives a gross estimate of the risk of death from circulatory disorders associated with the use of oral contraceptives:

**SMOKING HABITS AND OTHER PREDISPOSING CONDITIONS—RISK ASSOCIATED WITH USE OF ORAL CONTRACEPTIVES**

| Age | Below 30 | 30-39 | 40+ | |
|---|---|---|---|---|
| Heavy smokers | C | B | A | A—Use associated with very high risk |
| Light smokers | D | C | B | B—Use associated with high risk |
| Nonsmokers (no predisposing conditions) | D | C,D | C | C—Use associated with moderate risk |
| Nonsmokers (other predisposing conditions) | C | C,B | B,A | D—Use associated with low risk |

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g., thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis). Should any of these occur or be suspected, the drug should be discontinued immediately. A four- to six-fold increased risk of postsurgery thromboembolic complications has been reported in oral contraceptive users. If feasible, oral contraceptives should be discontinued at least four weeks before surgery of a type associated with an increased risk of thromboembolism or prolonged immobilization. 2. OCULAR LESIONS. There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives. Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision, onset of proptosis or diplopia; papilledema; or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures. 3. CARCINOMA. Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver. Certain synthetic progestogens, none currently contained in oral contraceptives, have been noted to increase the incidence of mammary nodules, benign and malignant, in dogs. In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives. Of the cases found in women without predisposing risk factors for adenocarcinoma of the endometrium (e.g., irregular bleeding at the time oral contraceptives were first given, polycystic ovaries), nearly all occurred in women who had used a sequential oral contraceptive. These products are no longer marketed. No evidence has been reported suggesting an increased risk of endometrial cancer in users of conventional combination or progestogen-only oral contraceptives. Several studies have found no increases in breast cancer in women taking oral contraceptives or estrogens. One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in the subgroups of oral contraceptive users with documented benign breast disease. A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented. In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential. In all cases of undiagnosed persistent or recurrent abnormal vaginal bleeding, appropriate diagnostic measures should be taken to rule out malignancy. Women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception.

Figure 1. Estimated annual number of deaths associated with control of fertility and no control per 100,000 nonsterile women, by regimen of control and age of woman.

| | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 |
|---|---|---|---|---|---|---|
| No method | 5.5 | 5.2 | 7.1 | 14.0 | 19.3 | 21.9 |
| Abortion only | 2.3 | 2.5 | 2.5 | 5.2 | 9.8 | 6.6 |
| Pill only-nonsmokers | 1.3 | 1.4 | 1.4 | 2.2 | 4.5 | 3.1 |
| Pill only-smokers | 1.5 | 1.6 | 1.6 | 10.8 | 13.4 | 58.9 |
| IUDs only | 1.1 | 1.2 | 1.2 | 1.4 | 1.6 | 1.4 |
| Traditional contraception only | 1.1 | 1.4 | 1.9 | 3.7 | 4.7 | 4.0 |
| Traditional contraception and abortion | 0.3 | 0.4 | 0.4 | 0.8 | 1.4 | 0.8 |

4. HEPATIC TUMORS. Benign hepatic adenomas have been found to be associated with the use of oral contraceptives. One study showed that oral contraceptive formulations with high hormonal potency were associated with a higher risk than lower potency formulations. Although benign, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage. This has been reported in short-term as well as long-term users of oral contraceptives. Two studies relate risk with duration of use of the contraceptive, the risk being much greater after four or more years of oral contraceptive use. While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass or shock. A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives. The relationship of these drugs to this type of malignancy is not known at this time. 5. USE IN OR IMMEDIATELY PRECEDING PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING. The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated to be on the order of 1 to 4 in 1000 exposures. Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception. Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy. Male children so exposed may develop abnormalities of the urogenital tract. Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes. An increased risk of congenital anomalies, including heart defects and limb defects, has been reported with the use of sex hormones, including oral contraceptives, in pregnancy. One case control study has estimated a 4.7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives. Embryos with these anomalies are virtually always aborted spontaneously. Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown. Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks. It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive. Many clinicians recommend three months although no precise information is available on which to base this recommendation. The administration of progestogen-only or progestogen-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy. 6. GALLBLADDER DISEASE. Studies report an increased risk of surgically confirmed gallbladder disease in users of oral contraceptives and estrogens. In one study, an increased risk appeared after two years of use and doubled after four or five years of use. In one of the other studies, an increased risk was apparent between six and twelve months of use. 7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives. An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives. 8. ELEVATED BLOOD PRESSURE. An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use. In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers. The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year. Age is also strongly correlated with the development of hypertension in oral contraceptive users. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives. Hypertension that develops as a result of taking oral contraceptives usually returns to normal after discontinuing the drug. 9. HEADACHE. The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause. 10. BLEEDING IRREGULARITIES. Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives. In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy. If pathology has been excluded, time or a change to another formulation may solve the problem. Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease. Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives. Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods. Postuse anovulation, possibly prolonged, may also occur in women without previous irregularities. 11. ECTOPIC PREGNANCY. Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. 12. BREAST FEEDING. Oral contraceptives given in the postpartum period may interfere with lactation. There may be a decrease in the quantity and quality of the breast milk. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The effects, if any, on the breast-fed child have not been determined. If feasible, the use of oral contraceptives should be deferred until the infant has been weaned. **PRECAUTIONS: General**: 1. A complete medical and family history should be taken prior to the initiation of oral contraceptives. The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests. As a general rule, oral contraceptives should not be prescribed for longer than one year without another physical examination being performed. 2. Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size. 3. Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree. Patients becoming significantly depressed while taking oral contraceptives should stop the medication and use an alternate method of contraception in an attempt to determine whether the symptom is drug-related. 4. Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, asthma, or cardiac or renal insufficiency. 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy. If jaundice develops in any patient receiving such drugs, the medication should be discontinued. 6. Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients. 7. Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency. 8. Serum folate levels may be depressed by oral contraceptive therapy. Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency. 9. The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted. 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives. a. Increased sulfobromophthalein retention. b. Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3, increased norepinephrine-induced platelet aggregability. c. Increased thyroid-binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG. free T4 concentration is unaltered. d. Decreased pregnanediol excretion. e. Reduced response to metyrapone test. **INFORMATION FOR THE PATIENT: (See Patient Package Insert). DRUG INTERACTIONS**: Reduced efficacy and increased incidence of breakthrough bleeding have been associated with concomitant use of rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. **CARCINOGENESIS, PREGNANCY, NURSING MOTHERS: See CONTRAINDICATIONS and WARNINGS. ADVERSE REACTIONS**: An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS): Thrombophlebitis. Pulmonary embolism. Coronary thrombosis. Cerebral thrombosis. Cerebral hemorrhage. Hypertension. Gallbladder disease. Liver tumors. Congenital anomalies. There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed. Mesenteric thrombosis. Neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis. The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug-related: Nausea, usually the most common adverse reaction. Vomiting, occurs in approximately 10% or less of patients during the first cycle. Other reactions, as a general rule, are seen much less frequently or only occasionally. Gastrointestinal symptoms (such as abdominal cramps and bloating). Breakthrough bleeding. Spotting. Change in menstrual flow. Dysmenorrhea. Amenorrhea during and after treatment. Temporary infertility after discontinuance of treatment. Edema. Chloasma or melasma which may persist. Breast changes: tenderness, enlargement, and secretion. Change in weight (increase or decrease). Change in cervical erosion and cervical secretion. Possible diminution in lactation when given immediately postpartum. Cholestatic jaundice. Migraine. Increase in size of uterine leiomyomata. Rash (allergic). Mental depression. Reduced tolerance to carbohydrates. Vaginal candidiasis. Change in corneal curvature (steepening). Intolerance to contact lenses. The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted: Premenstrual-like syndrome. Cataracts. Changes in libido. Chorea. Changes in appetite. Cystitis-like syndrome. Headache. Nervousness. Dizziness. Hirsutism. Loss of scalp hair. Erythema multiforme. Erythema nodosum. Hemorrhagic eruption. Vaginitis. Porphyria. Impaired renal function. (ORTHO-NOVUM 1/50□21 and ORTHO-NOVUM 1/50□28 contain tartrazine. Allergic reactions have been reported with the ingestion of this dye in some patients.) **ACUTE OVERDOSE**: Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children. Overdosage may cause nausea, and withdrawal bleeding may occur in females.

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# in Brief

## A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

**THE AMA FILED** suit against the Federal Trade Commission in an effort to overturn the FTC's ruling on advertising of ophthalmologists' and optometrists' services. At issue is whether a federal administrative agency has the legal right to invalidate a law passed by a state legislature. The FTC ruling prohibits states to have laws barring the advertising of eyeglass prices and requires ophthalmologists and optometrists to give patients copies of their eye prescriptions. The AMA suit argues that state legislatures should be permitted to pass laws governing competition and medical practice as long as they are reasonable and constitutional.

**THE AMA JOINED** as a co-plaintiff the Florida Medical Association lawsuit against HEW. The FMA suit seeks to stop the government from publishing the names of physicians who received Medicare payments last year. The AMA's petition to intervene in the FMA lawsuit was granted by Federal Judge Charles Scott. The Association was also granted an additional temporary restraining order in Chicago against HEW and HEW Secretary Califano on the same issue. Federal Judge Stanley Roskowski said in Chicago that publishing the Medicare payments list would invade the constitutional and statutorily recognized interests of each physician in the confidentiality of personal income information . . . and would deter physicians from treating Medicare patients in the future.

**THE WELFARE** of the medical care consumer is the primary objective of the AMA's new Department of Consumer Relations. The AMA plans to seek out consumer groups across the nation to determine their special needs regarding medical care. In turn, the AMA will provide consumers with information about the health care system, ranging from alternative methods of medical care delivery to the implications of national health insurance.

**THE DOCUMENTARY** film "Out of Sight, Out of Mind," examines the problems surrounding lack of quality medical care in jails and the progress made in solving some of the problems through the AMA's jail medical project. The film was shown last year during the Jail Health Care conference in Milwaukee and is available on a loan-free basis to medical societies. For information, write to Department of Radio, TV and Motion Picturers, AMA Headquarters.

**A BILL** to promote disease prevention and inform the public about good health practices was introduced by Sen. Edward Kennedy (D-Mass.). The bill, in part, would provide grants to states for programs aimed at the five leading causes of death and disability and calls for nutritional labeling on all foods and a comprehensive antismoking campaign. AMA Trustee Lowell H. Steen, M.D. said the Association is "basically supportive" of the legislation. Although the AMA has "some reservations" about certain provisions in the bill, Dr. Steen said, some of the programs are "things that the AMA has been advocating for many years."

**THE DRUG REGULATORY** Reform Act would be an unjustified intrusion into the practice of medicine, the AMA said in a debate with the FDA before the Senate Subcommittee on Health and Scientific Research. The Administration's proposal to overhaul the FDA "reflects a perception that the interests of the patient and the interests of the physician are not the same and, therefore, the government must intervene to 'protect' the patient," the AMA said. "We do not believe that perception is correct. Furthermore the bill implies that the bureaucracy in Washington is the proper source of medical decisions regarding individual patients. We do not believe that it is. We believe the treating physician is."

**THE "AMA STAFF-TO-PHYSICIAN** Interview Program" will be continued next year in seven as-yet-to-be-named new sites. The "on-site" program was launched last year as a means of ascertaining member opinions about the Association through face-to-face interviews with physicians around the country. Under the program the AMA has conducted interviews with more than 400 physicians in nine cities during the past year.

**A BIMONTHLY NEWSLETTER** for resident physician and medical student spouses is being published by the AMA Auxiliary. The new publication—*Horizons*—will provide information on AMA and AMA Auxiliary programs and policies.

*Announcing a local, one-day seminar . . .*

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Executive Director, Palm Beach—Martin County Medical Center, Inc., Jupiter, Florida; Past President of Society of Professional Business Consultants and Institute of Certified Professional Business Consultants; author of "Corporate Practice" and contributing author to PRISM (AMA) and other professional journals.

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**TIME AND PLACE:**

**Wednesday, September 27 and Thursday, September 28**

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Patient Relations; Scheduling and Appointments; Telephone Management; Medical Records; Billing Systems

Afternoon Session: 1:30-5:00 P.M.
Processing Insurance Claims; Questions and Answers; Collection Systems; Financial and Bookkeeping; Personnel; Questions & Answers/Discussion

**Registration:** 8:30-9:00 A.M.
Individual fee: $125; Additional People from same office $75 each
Registration fee includes lunch and course materials.
Contact for further information: Shirley Rider (Telephone 405/329-3110)

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Blow It Out—or Blow It!

# Editor's Corner

## THE WRONG WAY, THE RIGHT WAY AND WHY

It is a distressing fact that we can very easily determine that smoking among our young people is not decreasing. If anything, the trend is in the opposite direction. This is particularly unfortunate because it occurs after several years of feeble federal effort to reduce that very thing.

Any person with an ounce of brains could have predicted that this government campaign against smoking would be ineffective. It was ineffective because it was misdirected. The psychological approach aimed at "Tobacco smoking is injurious to your health" was about as poor as could be conceived, even in Washington. That approach was doomed to failure because the adults knew it already and the youth couldn't care less about something which might happen to them a half century later.

When one of my sons was 13, he said to me, "Dad, why do people have to die?" After swallowing a couple of times, I formulated the best reply I could think of. I said, "People die because they cannot withstand disease as they grow older and also because they do not repair themselves as well as when they were young." "If that's all there is to it," said my boy, "I'm not going to die." And there is the eternal optimism of youth. That sort of outlook is completely immune to advice that "Tobacco smoking is injurious to your health."

If the federal government wants to accomplish something in the anti-smoking field, then have them desophisticate smoking. Let them get some choice pictures of callow, pimply-faced, snaggle-toothed, stringy-haired contemporaries puffing away and then hammer with the legend that "You look dumb when you smoke." Or, even better, if they can come up with a shred of substantiating evidence, then blaze the headlines everywhere that "Smoking cuts down on your sexual performance." Now, we're getting somewhere!

But not the wheezy admonition of the surgeon-general that "Tobacco smoking is injurious to your health." That just don't cut it. It hasn't, and it won't.

**Wilfred E. Wooldridge, M.D.**

# NEWS

## From the Medical Schools

### ST. LOUIS UNIVERSITY

*William H. Friedman,* M.D., chairman of the Department of Otolaryngology, headed a team of physicians and researchers who were awarded the American Medical Association's Hektoen Gold Medal for excellence of original research. Their exhibit, "Computed Tomography of the Larynx," won the top honor at the AMA's 127th Annual Meeting held at St. Louis.

Other members of the research team included *Carol R. Archer,* M.D., chief of the Section of Neuro-Radiology, University Hospitals; *Vernon L. Yeager,* Ph.D., professor of anatomy; and *George P. Katsontonis,* M.D., otolaryngology resident at the University Hospitals.

A Black Lung study is the subject of two abstracts presented by *Roger H. Secker-Walker,* M.D., associate professor of internal medicine and physiology, at the Society of Nuclear Medicine 25th Annual Meeting held in Anaheim, California.

*Marjorie Guthrie,* founder and president emeritus of the National Committee to Combat Huntington's Disease and widow of celebrated folk singer and writer Woody Guthrie, was the recipient of the Department of Community Medicine's fifth annual Robert H. Felix Distinguished Service Award in Community Health/Community Medicine.

Max Pepper, M.D., presents the Robert H. Felix Distinguished Service Award in Community Health and Medicine to Mrs. Marjorie Guthrie.

Mrs. Guthrie was chosen to receive the award in recognition of her visionary leadership, commitment and service to community health and medicine. The award was presented by *Max Pepper,* M.D., M.P.H., professor and chairman of the Department of Community Medicine.

The Robert H. Felix Distinguished Service Award is named in honor of the Dean Emeritus of the School of Medicine.

The Arthritis Foundation has awarded the St. Louis University Arthritis Clinical & Research Center a grant in the amount of $15,000. The grant, which was accepted by *Jack Zuckner,* M.D., director of the Center, will help support the total arthritis program including research, patient care, and education of physicians, allied health personnel and laymen.

### UNIVERSITY OF MISSOURI-COLUMBIA

*Dr. James O. Davis,* chairman of physiology, was elected vice-president of the International Society of Hypertension at the June meeting of the society in Paris. He has been a member of the council of the society for four years.

While in Paris, Dr. Davis presented a scientific paper. He also traveled to Venice and Antwerp where he had been invited to give papers at medical symposia. In London, he lectured at Middlesex Medical School.

*Dr. Ronald H. Freeman* recently attended the Seventh International Congress of Nephrology in Montreal where he presented a paper at a workshop on angiotensin antagonists.

*Dr. Allan W. Jones* presented a paper at the Third International Symposium on "Vascular Neuroeffector Mechanisms" in Brussels in July. He also visited the laboratories of Professor Casteels in Leuven, Belgium and Professor Brading in Oxford.

*Dr. Robert Wixon,* professor of biochemistry, will leave this month to spend a sabbatical year at Massachusetts Institute of Technology on a National Institutes of Health Research Fellowship. Working with *Dr. Hemish Munro,* professor of chemistry at the Institute, he will study proteins involved in iron metabolism, ferritin and transferrin.

*Dr. Jack Curtis*, a Mayo Clinic heart surgeon with extensive training and experience in adult and pediatric heart surgery, has joined the Medical Center Department of Surgery staff.

Dr. Curtis's appointment to the surgical staff continues the Medical Center's efforts to further strengthen its thoracic and cardiovascular care programs. In addition to this appointment, the Medical Center has renovated and updated equipment in its cardiovascular catheterization laboratory and in the thoracic, pediatrics and coronary intensive care units.

A 1967 graduate of the University of Tennessee School of Medicine, Dr. Curtis served his general surgery residency at Duke University and Vanderbilt University. He also completed a two-year residency program in thoracic and cardiovascular surgery at the Mayo Clinic and then received an extra year of training in the field there as a postdoctoral fellow. His postdoctoral work included six months devoted exclusively to congenital cardiac surgery.

## WASHINGTON UNIVERSITY

*David Goldring*, M.D., professor of pediatrics, has received a grant of more than $137,000 from the National Institutes of Health to study the effect of exercise on adolescents with hypertension. *John O. Holloszy*, M.D., professor in the Department of Preventive Medicine, is co-investigator.

In a previous study, Goldring and his colleagues found that 3% to 4% of high school-age adolescents are hypertensive. The study, thought to be one of the first of its kind, established blood pressure norms for adolescents by taking the blood pressure of 20,000 St. Louis area high school students.

The current project will investigate if regular exercise can be effective against adolescent hypertension. About 60 youths from St. Louis area high schools will participate in the study which will require them to jog, bicycle or swim for a minimum of an hour a day. The program is being conducted with cooperation from teachers and counselors at the participating schools. Periodic evaluations will determine the students' compliance to the exercise program and what effect it is having on their hypertension.

*Justin J. Cordonnier*, M.D., professor emeritus and former head of the Division of Urology, was awarded the Guiteras Award at the annual meeting of the American Urological Association in Washington, D. C. This is the highest honor bestowed by the American Urological Association.

*W. Maxwell Cowan*, Ph.D., professor and head of the Department of Anatomy and director of the Division of Biology and Biomedical Sciences, has been named a nonresident Fellow of the Salk Institute.

*Paul A. Ebert*, M.D., professor and chairman of the Department of Surgery at the University of California Medical Center in San Francisco, delivered the eighth annual Thomas H. Burford Lecture in Thoracic Surgery at the School of Medicine on June 29. His subject was "Preserving the Myocardium—Possible or Impossible."

Dr. Ebert was awarded both a B.S. and an M.D. degree from Ohio State University and completed his surgical training at Johns Hopkins Hospital in Baltimore. After his first academic appointment with Duke University Medical Center, he served as professor and chairman of surgery at Cornell University Medical College from 1971-1975. His reexamination of the concept of cardioplegia led directly to the current widespread effort to find a method for preserving the myocardium during periods of myocardial ischemia.

## UNIVERSITY OF MISSOURI-KANSAS CITY

*Dr. and Mrs. E. Grey Dimond* led a travel party of 22 students and eight faculty members from the School of Medicine on a month-long visitation in Israel and Greece recently. The group was received by President Ephraim Katzir and leaders of the Israel Health Ministry. Major sites of study were Jerusalem, Beersheba, Tel Aviv and Haifa in Israel and the Island of Cos, where Hippocrates practiced, and Athens in Greece.

Seven members of the Biology Department presented a total of 11 papers at the national meetings of the Federation of American Societies for Experimental Biology in Atlantic City in April and the American Society for Microbiology in Las Vegas in May. They are *Drs. George Tempel, Judith Hemberger, Garth Resch, John Lawson, Marvin Rogolsky, Rona Hirschberg* and *Scott Martin*.

*Judy Harvey*, a fifth-year student in the School of Medicine, has been awarded a grant for $5,600 for the period of June 16, 1978 to May 21, 1979 by the National Fund for Medical Education. Ms. Harvey's grant is one of only 30 awarded nationally for projects involving creativity in concept, innovation in execution and originality in scope.

*Charles Wilkinson*, M.D., professor and assistant dean of the School of Medicine, has been appointed to the National Board Test Committee on Psychiatry for 1978 by the National Board of Medical Examiners.

# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Mercy-Baptist Eye Seminars
St. John's Mercy Medical Center
615 S. New Ballas Rd.
St. Louis 63141
*Contact:* Richard B. Oglesby, M.D.

| | |
|---|---|
| Nov. 12 | Seminar VII—Implant Surgery: Status of the Art |

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**The Edward Mallinckrodt Institute of Radiology—Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| Sept. 11 | City-Wide Radiology Conference: Investigations in Radiologic Visual Perception |
| Oct. 10 | Seventh Annual Wendell G. Scott Lecture—"Minding the Biomedical Continuum"—Dr. Donald Frederickson, Director National Institutes of Health, Department of HEW |
| Nov. 13 | Program to honor Juan M. Taveras, M.D., Third Director of the Mallinckrodt Institute of Radiology |
| Dec. 11 | City-Wide Radiology Conference: Double Contrast GI Examinations |
| (1979)<br>Jan. 1 | City-Wide Radiology Conference: Ultrasound in Obstetrics and Gynecology |
| Feb. 2 | City-Wide Radiology Conference—Pediatric Radiology |
| March 3 | City-Wide Radiology Conference—Efficacy Studies in Radiology—The Barium Enema |

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**Ed Bixby Institute for Postgraduate Education**
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

| | |
|---|---|
| Oct. 4 | Seminar: Acute and Chronic Treatment of Common Disabilities |

Greene County Medical Society
223 Professional Bldg., Springfield 65806
(417) 869-2531
*Contact:* James E. Thompson, Jr., Executive Director

| | |
|---|---|
| Sept. 29 | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

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St. Luke's Hospital
Wornall Rd. at 44th, Kansas City 64111
(816) 932-2020
*Contact:* Gail Williams, Speech Pathology Department

| | |
|---|---|
| Oct. 9-10 | Seminar: Neurology and Aphasia—Neurological, Linguistical and Behavioral Update |

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Society of Gastrointestinal Radiologists
c/o University Hospital
Ann Arbor, Mich. 48109
*Contact:* Walter M. Whitehouse, M.D., President

| | |
|---|---|
| Oct. 12-15 | Postgraduate Course—Diagnostic Imaging of the Gastrointestinal Tract<br>(Tan-Tar-A, Lake of the Ozarks, Mo.) |

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Kansas City Southwest Clinical Society
2220 Holmes, Room 230-232, Kansas City 64108
(816) 471-3876
*Contact:* Alta L. Bingham, Executive Director

| | |
|---|---|
| Oct. 26-28 | Annual Fall Clinical Conference |

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**University of Missouri-Kansas City School of Medicine—Kansas City Southwest Clinical Society**
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
*Contact:* Alta Bingham

| | |
|---|---|
| Sept. 22-23 | The Long Weekend: Rheumatology/Gastroenterology/Liver Disease |
| Oct. 26-28 | Fall Clinical Conference-Kansas City Southwest Clinical Society |
| Dec. 7-9 | The Heart 1978 |
| (1979)<br>Jan. 21-26 | Mid-Winter Traveling Medical Education Course<br>(Steamboat Springs, Colo.) |

*(Continued on next page)*

| | |
|---|---|
| **Feb. 9-10** | The Long Weekend: Infertility/Endocrinology |
| **March 4-10** | Late-Winter Traveling Medical Education Course<br>(Scottsdale, Ariz.) |
| **Feb. 17-24** | Winter Traveling Medical Education Course<br>(Maui, Hawaii) |

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**Washington University School of Medicine**
**Continuing Medical Education**
**Box 8063, 660 S. Euclid Ave., St. Louis 63110**
**(314) 454-3837 or (314) 367-9673**
***Contact:* Loretta Giacoletto**

| | |
|---|---|
| **Sept. 14-15** | Management of Patients With Arthritis |
| **Sept. 23** | Common Problems in Hand Injuries |
| **Oct. 5-7** | Clinical Allergy for the Practicing Physician |
| **Nov. 11-13** | Fourth Annual Symposium—Anesthesia and the Geriatric Patient |
| **Nov. 30-Dec. 1** | Emergency Cardiology—Diagnosis and Therapy |
| (1979)<br>**Feb. 16-17** | TB Today |

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**Kansas City Society of Ophthalmology and Otolaryngology**
**3036 Gillham Rd., Kansas City 64108**
**(816) 531-8432**
***Contact:* Mario J. Guastello, M.D., President, or Roger A. Weis, Executive Director**

| | |
|---|---|
| **Nov. 30-Dec. 1** | Annual Clinical Meeting<br>(Hilton Plaza Inn, Kansas City) |

**University of Kansas College of Health Sciences**
**Division of Continuing Education**
**Rainbow at Olathe Blvd., Kansas City, Kan. 66103**
**(913) 588-7130**

| | |
|---|---|
| **Sept. 11-12** | Respiratory Therapy Review Seminar |
| **Sept. 25-26** | Cancer: Diagnosis and Treatment of Malignancies of the Head and Neck |
| **Sept. 28-29** | Indications for Referral of Ocular Problems |
| **Oct. 12-13** | Recent Advances in Burn Management |
| **Oct. 18-20** | Internal Medicine<br>(Radisson-Muehlebach, Kansas City) |
| **Oct. 24-25** | Medicine and Religion |
| **Nov. 30-Dec. 1** | Surgery<br>(KUMC and Hilton Plaza Inn, Kansas City) |
| (1979)<br>**Feb. 22-23** | Gynecology and Obstetrics in the 80s |

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**Menorah Medical Center**
**4949 Rockhill Rd., Kansas City 64110**
**(816) 276-8089**
***Contact:* Mrs. Feya Scholtz, Postgraduate Education**

| | |
|---|---|
| **Nov. 15-17** | Postgraduate Course: Clinical Advances in Pediatrics<br>The Children's Mercy Hospital<br>(Contact Kurt Metzl, M.D., Course Coordinator) |
| **Every Thurs.** | Surgical Grand Rounds<br>(Contact Erich W. Pollach, M.D.) |

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# Hemophilia Program Now Available to Missouri Residents

In July of 1976, the Missouri legislature appropriated $200,000 for initiating a hemophilia program. Assistance is designed for those Missouri residents afflicted with a genetic indisposition of blood coagulating factors which may result in extensive orthopedic and physiological damage.

Although it is anticipated that the program will soon provide comprehensive treatment services, the initial activity of the program is to assist hemophiliacs with home therapy (infusion). Since it is widely recognized that home therapy is the most efficacious method of treating hemophilia, the Hemophilia Advisory Committee has recommended that the State Program provide financial assistance to hemophiliacs in the acquisition of blood products (particularly factor concentrate) for use in home infusion replacement therapy on an "as needed" basis.

In view of the necessary medical monitoring of a home infusion program, the following facilities are blood product repositories or treatment centers cooperating in the home therapy program: Cardinal Glennon Hospital (St. Louis), Barnes Hospital (St. Louis), St. Louis Children's Hospital, Community Blood Center of Greater Kansas City, Children's Mercy Hospital (Kansas City), University of Missouri Medical Center (Columbia), St. John's Hospital (Springfield) and the St. Louis Regional Red Cross Blood Program. Program Application/Registration forms and further information may be obtained by contacting the above facilities or the Hemophilia Program Coordinator, Missouri Division of Health, Broadway State Office Building, Jefferson City 65101.

In the anticipation of more comprehensive treatment services, all hemophiliacs are encouraged to register regardless of their applicability for participation in the present home infusion program.

## WHERE ARE YOU?

*Have you moved recently?* Please send any changes of address to MISSOURI MEDICINE, 113 Madison, Jefferson City, Mo. 65102. We need your help in keeping our mailing list up to date. You are our best source of information.

**Brief Summary of Prescribing Information**
**Combined TEGOPEN®** (cloxacillin sodium)
**Capsules and Oral Solution**
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

**Indications:** Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**Important Note:** When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**Contraindications:** A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**Warning:** Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**Precautions:** The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**Adverse Reactions:** Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**Usual Dosage:** Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.:* INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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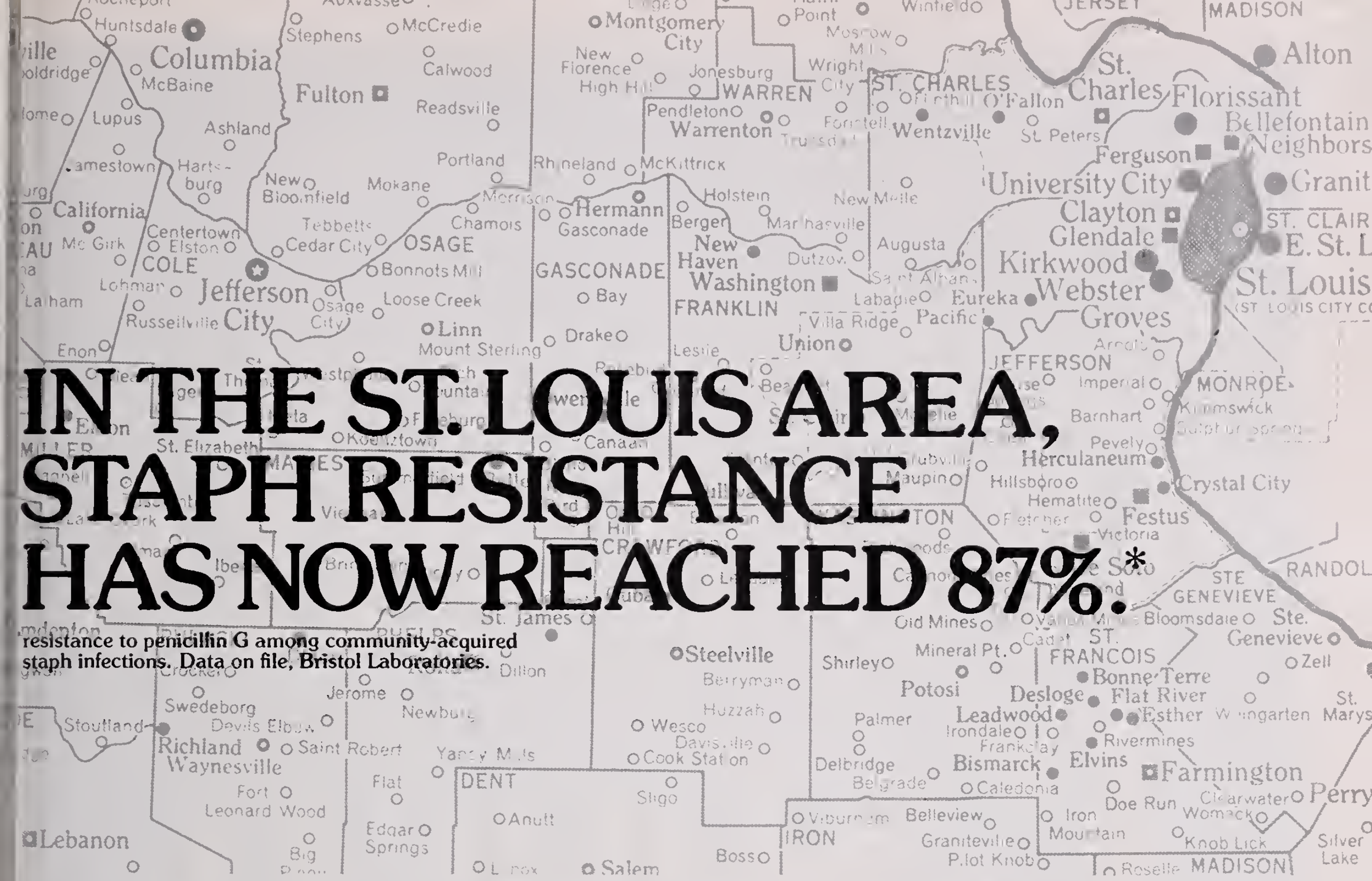
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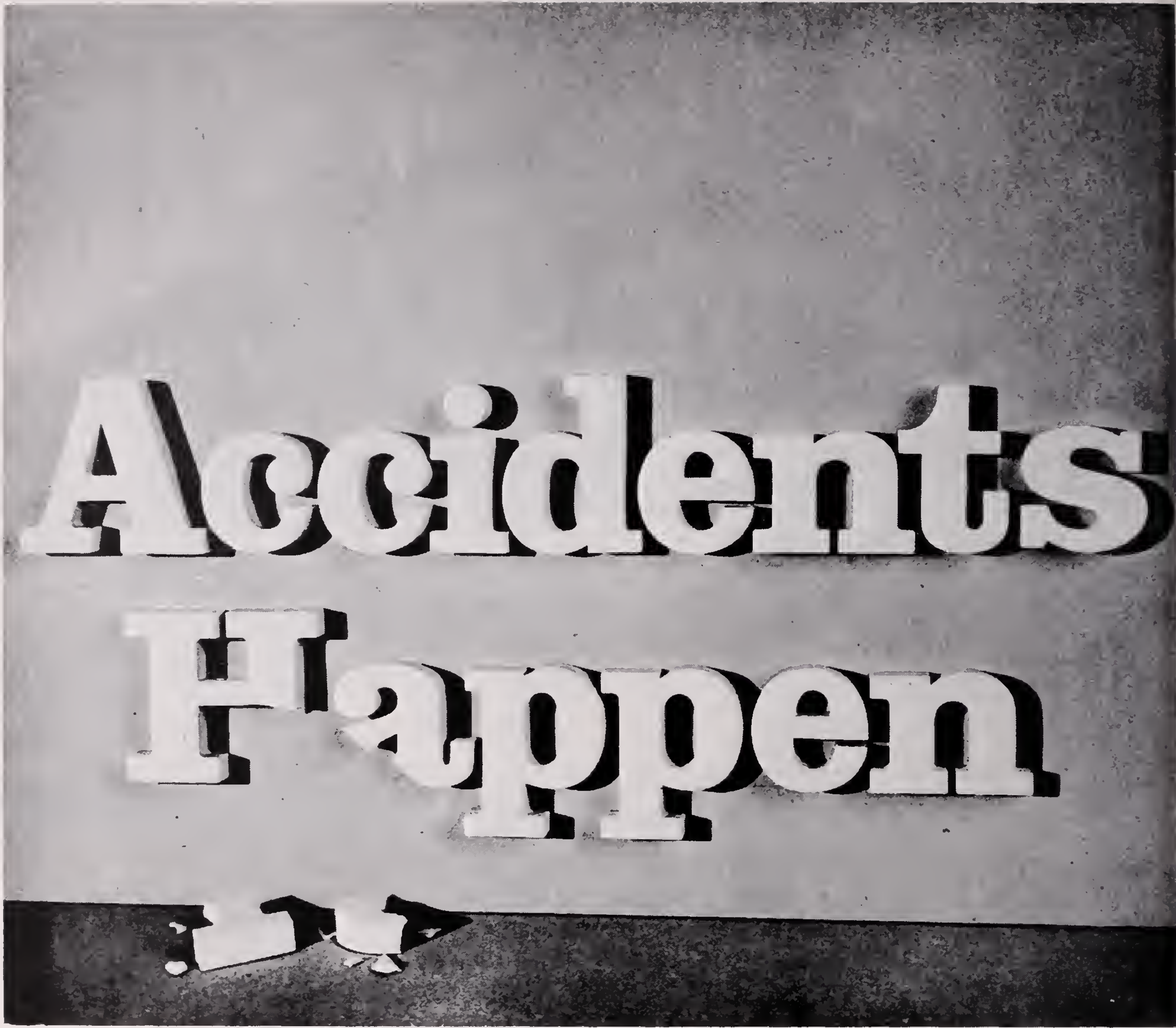

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Volume 75, Number 8—August, 1978

# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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**JAMES A. CAPLIN, M.D., KENT DeYARMAN, M.D.,**
**TERRANCE C. BLADOW, M.D., JAMES B. NEIBURGER, M.D.**
*and* **ROBERT J. DOCKHORN, M.D.,** *Kansas City*

# Childhood Screening for Immunodeficiency

## *Case Report*

IMMUNOLOGY is one of the most rapidly growing fields of medical science. There have been several excellent reviews demonstrating sophisticated methods used to diagnose immune deficiency.[1-4] Although these techniques are helping to delineate the pathophysiology more precisely, many are available only in larger medical centers and, as such, are not utilized by many practicing physicians. The purpose of this paper is to demonstrate that deficiencies in the immune system can be suspected and detected by the primary physician utilizing tools that are readily available. Five examples of immunodeficiency states referred to the allergy-immunology service are presented to illustrate this point.

With the accumulation of knowledge, the complexity of the body's immune system has become apparent. Although its interrelating, functional components should not be oversimplified, it is appropriate to systematically evaluate the B-cell (humoral), T-cell (thymic dependent), phagocytic and complement properties. The following discussion is not meant to be a detailed analysis of immunodeficiency. However, we hope it will be a useful guide for the practitioner.

The B-cell system provides secretory and circulating antibodies to prevent and fight bacterial and viral infections, parasitic infestations and some malignancies. The T-cell lymphocytes augment or suppress antibody function. They are involved in delayed hypersensitivity, graft-versus-host reactions, transplantation reactions, malignancy surveillance and defense against viral and fungal infections. The phagocytic cells intercept and process antigens and aid in the clearance and killing of bacteria. The complement system is a series of glycoproteins that act as mediators in producing chemotaxis, anaphylaxis and cell lysis. The B- and T-cell defects comprise by far the greatest number of immunological problems.[5, 6] The following paragraphs outline a systematic approach to their evaluation.

### HISTORY[7]

As with any medical problem, an accurate history is the first step. A familial history of immune deficiency, unusual or severe infections, collagen disorders and early infant death may signify an immune problem. Parental consanguinity increases the chance for expression of an autosomal recessive problem. Other immunodeficiencies are X-linked and found only in boys and men.

A personal history of infections of unusual type, unexpected severity or increased frequency is very important. Some indicators of immunodeficiency are (1) a severe clinical course or unusual complication from a relatively minor illness; (2) infections by Serratia marcescens, Pneumocystis carinii[8] or other unusual pathogen; (3) a history of recurrent pneumonias, persistent sinusitis or bronchiectasis; (4) prolonged or recurrent diarrhea; (5) failure to thrive; (6) and serious complications from administration of live virus vaccines.[9, 10]

The age of onset and clinical associations of the patient's symptoms may also provide a clue. Severe combined immunodeficiency (B-cell and T-cell) is manifested by the occurrence of infections in the first few weeks of infancy. However, recognition of pure B-cell or humoral defects could be delayed until six months of age or longer because of protection by placentally-transferred maternal IgG antibodies. Tetany in the newborn may be a manifestation of the DiGeorge syndrome with its T-cell defect. Dysgammaglobulinemia with elevated IgM has occurred in patients with congenital rubella. Rarely, infectious mononucleosis is followed by hypogammaglobulinemia.[5, 6]

Signs that may demonstrate immune competence include normal growth and development and complete recovery following viral and bacterial infections. Rhus dermatitis and the expected appearance and resolution of an exanthem with viral infections suggest intact T-cell immunity.[11] It is important to remember that the normal child may have six to 12 upper respiratory infections yearly and is well between them. The immune deficient patient tends to present a continuum of illness.

**With the accumulation of knowledge, the complexity of the body's immune system has become apparent. Although there are sophisticated methods used to diagnose immune deficiency, they are basically available only in larger medical centers. This paper demonstrates that diagnosis of immunological problems can be made by employing history, physical examination and commonly available laboratory procedures.**

**Dr. Straub is a Senior Fellow and Drs. Hulett, Caplin and DeYarman are Fellows in Allergy and Clinical Immunology at Children's Mercy Hospital, Truman Medical Center and the University of Missouri School of Medicine. Dr. Bladow is in the private practice of pediatrics in Joplin. Dr. Neiburger is Assistant Clinical Professor in Pediatrics and Internal Medicine at the School of Medicine. Dr. Dockhorn is Director of the Allergy-Immunology Training Program at Children's Mercy Hospital and Truman Medical Center and Associate Clinical Professor of Pediatrics and Internal Medicine at the School of Medicine.**

## PHYSICAL EXAMINATION

The physical examination of an immune deficient patient may be entirely normal. However, children may appear chronically ill, fail to thrive and exhibit mental and motor developmental delays. Evidence of recurrent or persistent infection should be sought, especially in regard to the respiratory system. Bronchiectasis, otitis media and sinusitis are common complications. Examination of lymphoid tissue may reveal hyperplasia or hypoplasia. Other clues, in addition to evidence of infection, are shown for representative syndromes in Table 1. More sophisticated investigations, such as T- and B-cell studies, that are not available in most local laboratories are not included.

## LABORATORY

Laboratory investigation should be initiated in a systematic manner, demonstrating both quantitative and functional aspects of the immunological components. Although the following laboratory determinations are categorized, some deficiencies will involve more than one division. It is important to differentiate whether a particular deficiency is primary or secondary to another disease process, such as loss of immunoglobulin in the urine of children with nephrotic syndrome.

### B-CELL SYSTEM[1, 4, 12-14]

Evaluation of humoral or B-cell immunity begins with the demonstration that all of its elements are present in normal amounts. In addition to physical examination of lymphoid organs, a lateral x-ray of the neck can show the presence or absence of an adenoidal shadow. Quantitation of the immunoglobulin levels of serum IgG, IgA and IgM is easily done by radial immunodiffusion using Mancini plates that are readily available commercially. These studies may also be done on body secretions, such as saliva or tears if a secretory antibody deficiency is suspected. Radial immunodiffusion is more accurate than the older method of immunoelectrophoresis. IgD may be similarly measured, but our present lack of knowledge concerning its purpose makes its determination of questionable practical value.

TABLE 1

PHYSICAL AND LABORATORY FINDINGS IN IMMUNODEFICIENCY

| *Syndrome* | *Clinical Features* | *Laboratory Findings*[*] |
|---|---|---|
| Transient hypogammaglobulinemia of infancy | Normal | Low IgG, IgM, IgA, IgD |
| X-linked hypogammaglobulinemia | Male; small or absent lymph nodes, tonsils, and adenoids; malabsorption; arthritis. | Low IgG, IgM, IgA, IgD |
| X-linked hypogammaglobulinemia with normal or increased IgM | Male; normal or enlarged lymph nodes, tonsils and adenoids; increased incidence of B-cell lymphomas. | Low IgG, IgA; normal or increased IgM; neutropenia, thrombocytopenia, hemolytic anemia. |
| Acquired hypogammaglobulinemia (common variable immunodeficiency) | Onset in late childhood or adulthood; lymph nodes of variable size; increased incidence of pernicious anemia and lymphoreticular malignancies. | Low IgG, IgM, IgA, IgD |
| Deficiency of IgA | Increased incidence of respiratory infections, allergy, celiac disease, rheumatoid arthritis, and systemic lupus erythematosus. | Low IgA in serum and secretions; normal or elevated IgG, IgM, IgD. |
| Severe combined immunodeficiency | X-linked or autosomal recessive; infections in early infancy; diarrhea; failure-to-thrive; absent lymph nodes, tonsils, and adenoids. | Lymphopenia; negative delayed hypersensitivity skin tests; absent thymic and adenoidal shadows on x-ray; low IgG, IgM, IgA, IgD. |
| Congenital thymic aplasia (DiGeorge syndrome) | Neonatal tetany; congenital heart disease (aortic arch abnormalities); hypoparathyroidism; hypertelorism; notched ear pinnae; micrognanthia; low set ears; antimongoloid slant of eyes; nephrocalcinosis. | Normal or low absolute lymphocyte count; hypocalcemia; elevated phosphorus; absent thymic shadow on x-ray; negative delayed hypersensitivity skin tests. |
| Wiskott-Aldrich syndrome | Male; eczema; failure-to-thrive; petechiae; bleeding tendencies; increased incidence of lymphoreticular malignancies. | Thrombocytopenia; lymphopenia; Coomb's positive anemia; normal IgG; low IgM; increased IgA, IgD, IgE; absent isohemagglutinins; negative delayed hypersensitivity skin tests. |
| Chronic mucocutaneous candidiasis | Chronic candida infection; hypoparathyroidism; Addison's disease; hypothyroidism; pernicious anemia; gonadal dysgenesis. | Negative delayed hypersensitivity skin test to candida antigen; other delayed hypersensitivity skin tests positive. |
| Ataxia-telangiectasia | Ataxia; telangiectasia on bulbar conjunctiva and skin; sinopulmonary tract infections; increased incidence of lymphosarcoma. | Normal or low IgA and IgE; lymphopenia; absent delayed hypersensitivity skin tests. |
| Chronic granulomatous disease | Abscess formation of any organ; enlarged lymph nodes, liver and spleen; eczematoid or seborrheic dermatitis; diarrhea. | Abnormal nitroblue tetrazolium dye test; leukocytosis; anemia; elevated IgG, IgM, and IgA. |

[*] Only abnormalities which can be detected in the local laboratory are included.

The intact function of the humoral system can be shown by measuring specific antibody titers. IgM response is demonstrated by the presence of isohemagglutinin titers of 1 : 4-1 : 8 or greater after six months of age. Although the Shick test is no longer readily available, IgG response can be shown by the presence of ASO (antistreptolysin), polio, rubella, diphtheria and tetanus titers if the patient has contracted these organisms or received immunizations against them. The ASO and rubella titers are usually available locally, while state laboratories provide measurement of the diphtheria and tetanus levels. One way of demonstrating both IgG and IgM function is by administering three weekly 0.5 ml injections of typhoid vaccine and then obtaining the "febrile" agglutinins to the H antigen (IgG response) and the O antigen (IgM response). However, caution should be used, and certainly no such patient should receive live or attenuated virus immunizations.[9, 10]

Interpretation of tests of B-cell anatomy and function depends on age, possible presence of transplacentally acquired IgG and prior gamma globulin treatment.

## T-Cell System[1-4, 15, 16]

The anatomy of the T-cell (thymic dependent) system is established by a normal absolute lymphocyte count (percent of lymphocytes multiplied by total white cell count) and normal, small lymphocytes on a peripheral blood smear. Because approximately 70% of circulating lymphocytes are T-cells, an absolute lymphocyte count of less than 1,200 cells/mm$^3$ may indicate T-cell deficiency. The presence of a thymic shadow is variable, but it should be found in a patient under 12 months of age if he has not been stressed or received steroid treatment.

TABLE 2

SCREENING PROCEDURES FOR IMMUNODEFICIENCY

*Humoral (B-cell)*
- Lateral x-ray of neck for adenoidal shadow
- IgG, IgA, IgM, IgD
- Antibody titers: isohemagglutinins, antistreptolysins, rubella, diphtheria, tetanus, polio, typhoid

*Thymic Dependent (T-cell)*
- Chest x-ray for thymic shadow
- Absolute lymphocyte count
- Peripheral blood smear
- Skin tests for delayed hypersensitivity: candida, fluid tetanus toxoid, tuberculin, histoplasmin, mumps, trichophyton, streptokinase-streptodornase

*Phagocytosis and Complement*
- Total white cell count and differential
- Total hemolytic complement
- Quantitative complement components

There are several skin tests to detect the delayed hypersensitivity function of the T-cell division. These include the tuberculin, histoplasmin, mumps, streptokinase-streptodornase, trichophyton, candida and fluid tetanus toxoid skin tests. If the patient has had a tetanus immunization, fluid tetanus toxoid and candida may be the most useful antigens. A 10 mm or larger area of induration 48 to 72 hours after intradermal injection of 0.1 ml of antigen is considered positive. The fluid tetanus toxoid is obtained from the tubex used for tetanus immunization. Candida skin testing is started at a dilution of 1 to 1,000. If negative, a 1 to 100 concentration is used. Because of possible severe tissue reactions, we do not advocate routine screening by topical application and subsequent challenge with dinitrochlorobenzene.

## Phagocytic and Complement Systems[17-21]

Phagocytic and complement screening at the local level may be difficult. Fortunately, these defects are more rare than B- or T-cell problems. However, investigation is required if answers are not found in the latter two systems. Normal phagocytic function may be screened by obtaining a complete blood count and absolute polymorphonuclear count. The nitroblue tetrazolium test (NBT) has been found useful in detecting chronic granulomatous disease and its carrier state.[22] Quantitative levels for complement components and total hemolytic complement can be screened by using radial immunodiffusion on Mancini plates. The only factor against their use in a smaller hospital is the rarity of need.

Table 2 summarizes available laboratory procedures used for immune screening.

## Case Reports

Case 1 This 8-day-old boy was admitted for evaluation because an older brother had died at the age of four months with a diagnosis of thymic alymphoplasia. The parents are first cousins, and the mother has had at least three early spontaneous abortions. Results of a physical examination were normal except that no lymphoid tissue could be found. The laboratory data revealed white blood cell count (WBC) of 3,700 with 49% segs, 12% bands, 18% lymphs, 5% monos and 16% eosinophils. The total lymphocyte count was 666 cells/mm.$^3$ IgG—1,600 mg/dl, IgA—0 mg/dl, IgM—7.6 mg/dl, IgE—1 unit/ml, T-cell rosettes—0, adenosine deaminase—0. Adenosine deaminase in the mother and father were 28 and 29 $\mu$M/hr/Gm/Hb respectively.

No thymus could be seen on the x-ray. The diagnosis of severe, combined immunodeficiency was confirmed. The elevated IgG was due to transplacentally acquired maternal IgG.

### Comments

This patient was identified because his referring physician had a high index of suspicion. Important points are the male sex, history of abortions, consanguinity, sibling history of immunodeficiency, absent lymphoid tissue, absent thymic shadow, low total white cell count and decreased absolute lymphocyte count. The other studies were confirmatory.

**Case 2** This 17-month-old boy presented with a history of failure-to-thrive, recurrent "colds," draining ears and a diffuse eczematoid rash snce birth. No lymphoid tissue could be found on examination. Laboratory data revealed the following values: WBC, 12,800 with 51% segs, 35% lymphs, 4% monos and 10% eosinophils; platelet count, 10,000; absolute lymphocyte count, 4,480 cells/mm$^3$; T-cell rosettes, 10%; lymphocyte PHA stimulation, negative; candida and SK-SD skin tests, negative; isohemagglutinins, negative; blood group, "O"; IgM, 43 mg/dl; IgA, 410 mg/dl; IgG, 588 mg/dl; IgE—> 1400 units/ml.

### Comments

The patient's male sex, failure-to-thrive, eczema, recurrent ear infections, thrombocytopenia and evidence of T- and B-cell dysfunction point to a diagnosis of Wiskott-Aldrich syndrome.[23]

**Case 3** This 12-year-old boy had a four-year history of cough and recurrent infections of the middle ears, maxillary sinuses and lower respiratory tract. Immunoglobulin assay by his referring physician indicated low IgG, IgM and IgA levels. Rales were heard in the left posterior chest. An X-ray demonstrated a left lower lobe pneumonia and clouding of both maxillary sinuses. Laboratory evaluation showed the following: IgG, 42 mg/dl; IgA, 3.8 mg/dl; IgM, 4.5 mg/dl; IgE, < 10 units/ml; isohemagglutinins weakly positive; RAST negative; WBC—12,800 with 72% polys, 5% stabs, 19% lymphs, 3% monos, 1% eosinophils; absolute lymphocyte count, 2432 cells/mm$^3$; platelet count, 283,000; total hemolytic complement, 250 C′H 100; C′3, 245 mg/dl; C′4, 67 mg/dl; C′5, 10.5 mg/dl; T-cell rosettes, 43%; B-cell markers: IgG, 9%; IgA, 1%; IgM, 10%; IgE, 1%; NBT test, 93%; sweat test, 15 meq/dl; intradermal skin test to candida albicans, positive.

### Comments

This patient's recurrent sinopulmonary infections led his physician to evaluate his immunoglobulin levels, an investigation that helped establish a diagnosis of acquired hypogammaglobulinemia (common variable immunodeficiency).[24] Laboratory evaluation of the other immune parameters was normal.

**Case 4** This female infant was admitted at four months of age following a month of "cold symptoms" and subsequent development of diarrhea and dehydration. All parameters of growth were below the third percentile. An examination revealed oral thrush and bilateral pneumonia. Escherichia coli was cultured from the blood and urine. Laboratory data are as follows: WBC, 11,400 with 77% segs, 15% bands, 2% lymphs, 6% monos; absolute lymphocyte count, 228 cells/mm$^3$; T-cells rosettes, 1%; candida skin test, negative; IgG, 92 mg/dl; IgA, 9.5 mg/dl; IgM, 30 mg/dl; IgE, < 5 units/ml; NBT test, 92%; C′3, 135 mg/dl; sweat test, 27 meq/dl. A chest x-ray showed no thymic shadow.

### Comments

The patient's history of prolonged respiratory symptoms, diarrhea, failure-to-thrive, oral thrush and sepsis is secondary to a severe combined immunodeficiency that was shown by the above abnormal T- and B-cell indicators. Lymphopenia was a prominent sign of T-cell dysfunction and prompted the search for an immune problem.

**Case 5** This 8-month-old boy had a history of prolonged diarrhea (> 2 months), generalized monilial rash in early infancy and chronic cough. Tonsillar tissue was present and the physical examination was normal. Laboratory data are as follows: WBC, 8,800 with 74% segs, 2% bands, 15% lymphs, 8% monos, 1% eosinophils; absolute lymphocyte count, 1,320 cells/mm$^3$; T-cell rosettes, 12%; skin tests to candida albicans and fluid tetanus toxoid, negative; IgG, 0 mg/dl; IgA, 4 mg/dl; IgM, 54 mg/dl; IgE, 5 units/ml; NBT test, 95%; total hemolytic complement, 140 C′ H 100; C′3, 140 mg/dl; B-cell markers: IgA, 15%; IgG, 30%; IgM, 27% total B-cells, 72%.

### Comments

Even though the physical examination was normal, the history of prolonged diarrhea, generalized candidiasis, chronic cough, low normal lymphocyte count, negative delayed hypersensitivity skin tests and low immunoglobulin levels are all clues to the diagnosis of severe combined immunodeficiency.

### Summary

This paper demonstrates that diagnosis of immunological problems can be made employing history, physical examination and commonly available laboratory procedures. Five cases of immune deficiency referred to the allergy-immunology service of Children's Mercy Hospital illustrate this point. We do not want to draw attention from other important clinical considerations such as cystic fibrosis,

*(Continued on page 398)*

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# Percutaneous Removal of Retained Common Bile Duct Stones

An attempt was made to percutaneously remove retained biliary calculi in 74 patients. The procedure was successful in 60 of 65 patients in whom the steerable catheter and wire basket could be brought into contact with the retained stone. This is a safe procedure with minimal complications and its performance does not require hospitalization of the patient.

A suitable caliber T-tube tract (14F or larger), developing over a minimum period of four to five weeks, is essential for retrieval of the retained calculi.

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Approximately 5% of all patients in the United States who undergo common bile duct exploration will be found to have retained biliary tract calculi.[1, 2] Surgical retrieval of these retained calculi has a higher morbidity and mortality rate than the primary surgical procedure. During the past few years, several techniques have been devised for the percutaneous removal of these retained calculi.[2–7] The purpose of this article is to report the results of our experience in the percutaneous removal of retained biliary calculi.

## Materials and Methods

During the four-and-a-half-year period from April, 1973 to October, 1977, 74 patients were referred to the Abdominal Section of Mallinckrodt Institute of Radiology for the removal of retained biliary calculi. There were 56 outpatients and 18 inpatients whose ages ranged from 20 to 88 years with a mean of 57 years. The group consisted of 55 women and 19 men. No patients were evaluated at less than four weeks after their operation and the majority were evaluated at five weeks or more postoperatively. This time period was necessary to allow a firm tract to form around the T-tube.

Following a preliminary T-tube cholangiogram for confirmation of the presence of the retained calculus, the T-tube is removed. A steerable catheter (Meditech Corporation, Watertown, Mass.) is guided into the common bile duct through the T-tube tract, under fluoroscopic control. A wire basket, which is similar to a Dormia ureteral basket, is passed through the steerable catheter beyond the calculus. The stone is then snared and gently withdrawn through the tract (Fig. 1). Details of this technique have been reported previously.[4]

TABLE 1

ANALYSIS OF 74 PATIENTS REFERRED FOR PERCUTANEOUS REMOVAL OF RETAINED STONES IN CBD

| | |
|---|---|
| No. of referred patients | 74 |
| No. of procedures required | 90 |
| No. of stones on preliminary T-tube cholangiogram | 5 |
| No. of successful cases | 55 |
| No. of failed cases | 14 |

## Results

The results are summarized in Table 1. A total of 90 procedures was performed on the 74 patients. Only one visit to the department was required for 63 patients. Seven patients required two visits, three patients required three visits and one required a fourth visit before the procedure was considered complete.

In five patients, no retained calculus could be found in the preliminary T-tube cholangiogram. In these cases, the T-tube was removed and repeat detailed contrast studies were performed by means of the steering catheter to confirm the absence of stones. The study was then terminated. All stones were successfully removed in 55 patients. Forty patients had a single retained calculus and the remaining 15 patients had multiple calculi ranging from two to nine in number. In three cases, the stone came out when the T-tube was pulled since the stones were trapped between the limbs of the tube. In six patients, small retained stones were deliberately pushed into the duodenum ahead of the catheter, with minimal or no discomfort to the patient. In one case, a small round stone could not be engaged within the basket. However, it was possible to remove it by sucking it up against the tip of the catheter and withdrawing while maintaining negative pressure. In the remaining 45 patients, the stones were removed with the basket. In 17 of these cases, the stone(s) was fragmented before removal due to its large size or soft consistency.

In 14 patients, the retained stone(s) could not be removed. Causes for failure are listed in Table 2. The majority of failures were due to small or incomplete T-tube tracts which could not be negotiated or impassable strictures within the biliary tract itself.

## DISCUSSION

Good quality intraoperative cholangiography can reduce the number of retained biliary calculi. However, small stones can go unrecognized even in technically good operative cholangiograms. If common duct exploration is required, a 14 french or larger T-tube should be inserted and brought out through a separate anterolateral drain site on the right side in order to facilitate reentry of the common duct should a postoperative cholangiogram reveal the presence of retained stones.

A suitable fibrous tract requires at least four weeks to develop. Attempts to percutaneously remove stones prior to this four-week interval should not be made. A five-to-six-week delay is considered optimal. In one unusual case, the common duct was entered through a tract that had existed for more than ten years. In this case, the internal portions of the encrusted T-tube first had to be removed with a wire loop before the retained stones could be manipulated.

TABLE 2

ANALYSIS OF 14 UNSUCCESSFUL PROCEDURES

| | |
|---|---|
| A. Anatomical difficulties | |
| 1. Could not enter CBD through tract | 6 |
| 2. Stone proximal to ductal stenosis | 3 |
| B. Technical difficulties | |
| 1. Stone adherent to wall of CBD | 1 |
| 2. Stone too large for basket (15mm) | 1 |
| 3. No apparent reason | 3 |

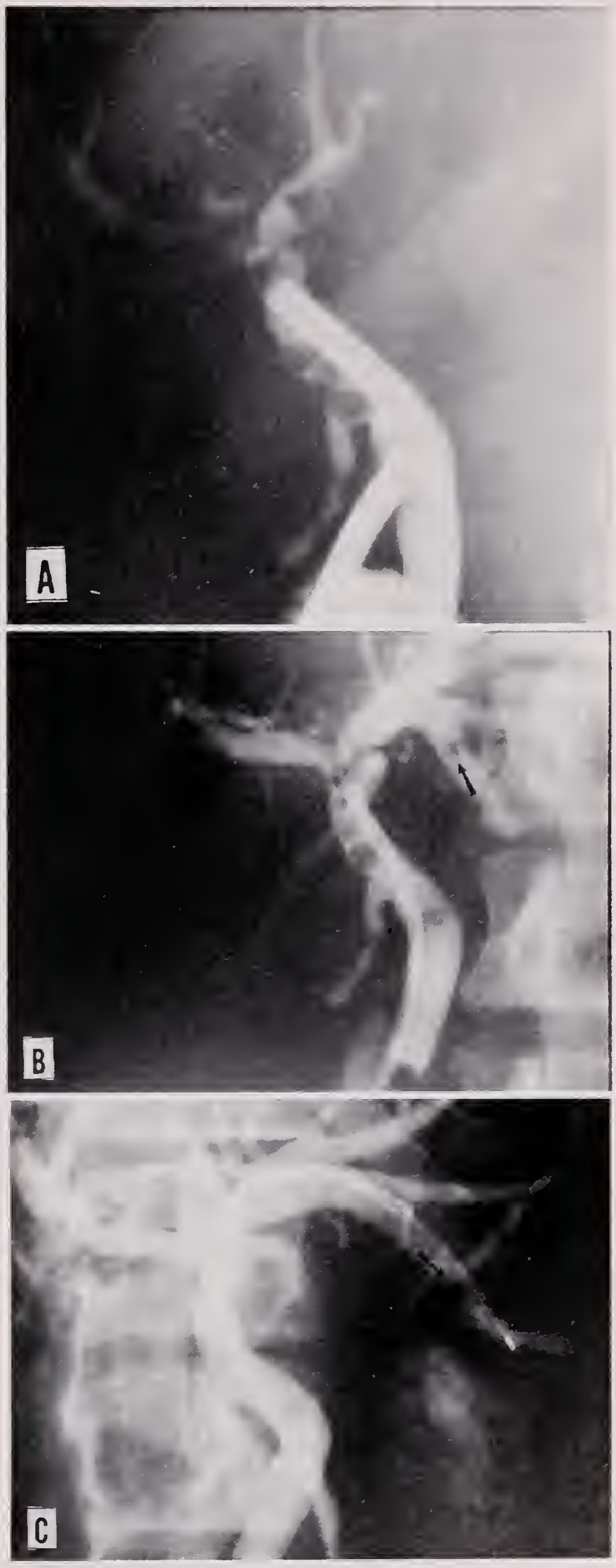

Fig. 1 (A) Original T-tube cholangiogram reveals multiple retained calculi in common bile duct and intrahepatic radicles. (B) The T-tube has been replaced by steerable catheter. (C) The steerable catheter is located in the tributary of left main hepatic radicle with wire basket in place adjacent to stone but not yet opened.

There is only one reported case of mortality related to this procedure.[8] The morbidity includes sinus tract perforations, bile duct perforations, subhepatic bile collections, subdiaphragmatic abscesses, fever, sepsis, pancreatitis and vaso-vagal reactions.[9] There were three complications in this series. One patient developed transient pancreatitis and required 48 hours of hospitalization. Recovery was complete with conservative medical management. Two cases of perforation of the T-tube tract occurred with extravasation of the contrast material into the peritoneal cavity. One of these two patients was admitted and observed for 24 hours without event. The other patient did not require any special medical management.

If one were to exclude the nine patients in whom the steering catheter could not be brought into contact with the stone, the success rate of stone removal in this series would be 92% (60/65). In view of the high success rate and low morbidity, it is recommended that percutaneous removal of retained calculi be attempted in all patients who are demonstrated to have retained biliary stones on their postoperative cholangiogram.

## SUMMARY

Percutaneous removal of retained biliary calculi through a mature T-tube tract is a safe, easily mastered technique which can be performed on an outpatient basis. In those cases in which the procedure was technically feasible (65 patients), the success rate was 92%. Failure was primarily related to the narrow caliber of the T-tube tract or to strictures within the common bile duct. The potential morbidity of the procedure is minimal when compared with the surgical alternatives.

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# *Immunodeficiency*

*(Continued from page 395)*

allergy and anatomical defects. However, the inclusion of immune deficiency in the differential diagnosis of patients with recurrent infection should be considered.

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**RAY A. MURPHY, D.O.,** *Columbia*

# Malignant Histiocytoma

## *Case Reports*

The literature is confusing in regard to tumors or tumefactive proliferations known as histiocytoma. Different descriptive terms and varied nomenclature have been applied to similar lesions depending upon the bias of the observers.[1] The histiocyte is an ubiquitous cell derived from the reticulum cell. Unlike other precursor cells, the histiocyte is a differentiated cell able to dedifferentiate with specific functions including phagocytosis. It may differentiate into fibroblast or become engorged with lipid, producing foam cells or xanthoma cells. Table 1 depicts the numerous entities associated with the histiocyte. Table 2 is a list of tumors arising from histiocytes. Table 3 lists the various histologic characteristics of tumors arising from histiocytes.

The purpose of this study was to ascertain the clinical behavior of this group of neoplasms with regard to patterns of growth and invasiveness, local recurrence after adequate excision, nodal and distant metastases and to postulate optimal management.

### Clinical Materials and Observations

Seven patients with malignant histiocytoma seen at the Ellis Fischel State Cancer Hospital had histological diagnoses established by our pathologist with consultative diagnoses from Armed Forces Institute of Pathology (AFIP) or other authoritative pathologists. These are reviewed and summarized in Table 4. All radiation therapy administered was given with a Co-60 unit at 80 cm SSD.

In this series, there are four men and three women with ages ranging from 26 to 87 years. The most common site appears to be the extremities with the lesion's presenting as a painless growing mass in three cases and in one case being associated with inflammatory change. The growth appears to be rapid and only in one case was there a history of a mass over a long period of time (eight years). The retroperitoneal lesions appeared to be very aggressive with one metastasizing to the humerus, thoracic spine and the posterior auricular area. These metastatic foci responded to conservative doses of palliative radiation therapy, 3,000 to 4,000 rads given dose.

One case involving the calf of the left leg recurred in the excision margin 12 months after a wide excision in the grafted area. This was excised for diagnostic purposes and treated primarily with radiotherapy with a dose of 5,000 rads in five weeks to a large field using parallel opposing fields and a boost of 1,000 rads in the site of the lesion. A second recurrence was documented at another margin of the first excision and within the field of the 6,000 rads 12 months later. The recurrence involved the skin and subcutaneous tissues. Since no bolus was placed on the skin during the radiation therapy, it can be concluded that the second recurrence occurred in the superficial area which did not receive a sufficient dose. The probable computed dose to the skin is approximately 4,000 rads.

One involving the neck and posterior auricular area occurred after repeated exposure to superficial x-radiation. The following is the case history.

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**This paper includes a review of seven cases of malignant histiocytoma from the medical records of Ellis Fischel State Cancer Hospital. Clinical behavior and response to treatment are analyzed and the findings are correlated with information that has been published in the medical literature. The authors conclude that tumors arising from histiocytes are highly malignant and should be managed aggressively with wide local excision followed by adequate postoperative radiotherapy.**

**Dr. Canoy is Director and Dr. Murphy is a Resident, Department of Radiotherapy, Ellis Fischel State Cancer Hospital and Cancer Research Center.**

**This investigation was supported in part by Clinical Cancer Education Program CA 17946 from the National Cancer Institute, DHEW.**

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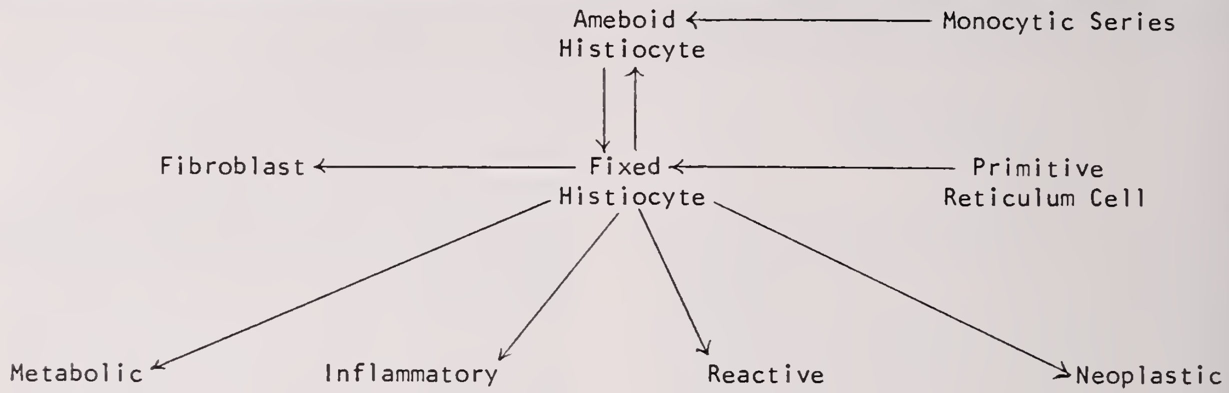
TABLE 1

THE UBIQUITOUS HISTIOCYTE



| Metabolic | Inflammatory | Reactive | | Neoplastic |
|---|---|---|---|---|
| Xanthoma diabeticorum | Histiocytosis-X (?viral) | | | Systemic malignant histiocytosis |
| Giant cell tumors of familial hypercholesterolemia | Specific granulomas<br>Endogenous lipid pneumonia | Histiocytoma | → | Histiocytoma |
| | | Xanthoma | → | Xanthoma |
| | Exogenous lipid pneumonia | Xanthogranuloma | → | Xanthogranuloma |
| | | Fibrous xanthoma | → | Fibrous xanthoma (benign & malignant) |
| Xanthelasma | Xanthogranulomatous pyelonephritis | Xanthofibroma | → | Xanthofibroma |
| Gaucher's disease | Malacoplakia | Dermatofibroma protuberans | | Dermatofibroma protuberans |
| Niemann-Pick disease | Xanthogranuloma | Sclerosing hemangioma | | |
| | | Pigmented villonodular synovitis & variants including giant cell tumor of tendon | → | Pigmented villonodular synovitis & variants including giant cell tumor of tendon |

Reprinted with permission from Pear, B. L.: The Histiocyte in Radiology: With Case Reports of Retroperitoneal Xanthogranuloma and Malignant Fibrous Xanthoma. Am. J. Roentgenol. Rad. Ther. Nucl. Med. 110:160 (Table I) and 164 (Table III), 1970.

## Case Report

This 87-year-old white man was referred to the Ellis Fischel State Cancer Hospital on June 9, 1975 for evaluation and treatment of a lesion involving the left retroauricular region extending to the left ear. The diagnosis was squamous cell carcinoma. During the 30 years before his admission to Ellis Fischel, he had been treated for numerous skin lesions involving the head and neck with superficial x-radiation. The left retroauricular region received a total of intermittent irradiation using a 50 KV machine with a 0.5 mm aluminum filter of 12,000 roentgens for a diagnosis of a "precancerous lesion," most likely hyperkeratosis. In January, 1973, subcutaneous nodules were noted in the fibrotic left retroauricular region. They continued to grow slowly and were biopsied finally in March, 1974. This was read histologically as squamous cell carcinoma. This area was again treated with superficial x-radiation to a total of 5,587 R in four fractions using a 5 cm x 5 cm field. This became ulcerated and crusty and showed no healing until he was finally seen in the Ellis Fischel State Cancer Hospital.

On this admission, the lesion was ulcerative and weeping, measuring approximately 4 cm x 6 cm with a large 3 cm hard bulla extending to the posterior auricular region and posterior pinna. X-rays of the mastoids showed evidence of rarefaction with blurred mastoid air cells suggesting infiltrates or an inflammatory process or radiation necrosis. There were no palpable nodes. The lesion was excised on June 14, 1975 with a split thickness graft. The histological diagnosis was malignant fibrohistiocytoma. The lesion recurred in the left posterior aspect of the parotid gland and in the temporal portion of the mastoid region with involvement of the auriculotemporal and digastric branches of the facial nerve.

A radical excision was made with a new skin graft. The margins were positive for malignancy and the patient was referred for postoperative irradiation. Co-60 treatments at 80 cm SSD were administered through paired oblique wedges with a bolus over the lesion. A dose of 5,000 rads to a large volume which included the proximal cervical nodes was delivered in five weeks. With a reduced field, a total of 7,000 rads was given to the actual tumor site. The patient tolerated these

TABLE 2

TUMORS OF HISTIOCYTES

Histiocytoma
Xanthoma
Xanthogranuloma
Fibrous xanthoma
Dermatofibroma protuberans
Fibrous xanthoma of synovium
Giant cell tumor of tendon sheath
Pigmented villonodular synovitis
Pigmented villonodular bursitis
Pigmented villonodular tenosynovitis

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TABLE 3

SYNOPSIS OF HISTOLOGIC FEATURES OF TUMORS

Histiocytic-like (epithelioid) cells
Spindle cells (facultative fibroblasts)
Fibrogenesis
Storiform pattern
Multinucleated benign giant cells
Tumor giant cells (often bizarre)
Foam cells
Inflammatory cells (usually lymphocytes)
Anaplasia of stromal cells
Mitotic figures (normal and atypical)
"Granulomatous" features

Reprinted with permission from Soule, E. H. and Enriquez, P.: Atypical Fibrous Histiocytoma, Malignant Fibrous Histiocytoma, Malignant Histiocytoma and Epithelioid Sarcoma: A Comparative Study of 65 Tumors. Cancer 30:129 (Table I), 1972.

treatments quite well. His last follow-up 19 months after completion of radiation therapy showed fibrotic changes but no ulcerations, nodulation or any evidence of recurrence of the disease or of morbid sequelae from the radiation therapy.

Squamous cell carcinoma is known to arise from repeated superficial x-radiation of the skin. Soft tissue sarcoma is also known to arise from previously heavily irradiated areas. There are cases reported of fibrohistiocytoma arising from sites of radiation damage.[2]

There is confusion in the histological diagnosis of histiocytoma as exemplified by the following case report.

## Case Report

One female patient was initially referred to the Ellis Fischel State Cancer Hospital with a diagnosis of rhabdomyosarcoma from a mass in the rectus femoralis muscle. A wide en bloc excision was done. Our pathologist reported the lesion as fibroxanthosarcoma and the AFIP reported the lesion as a malignant fibrohistiocytoma. Sixteen months later, the mass recurred. This prompted a radical groin dissection. A seroma developed as well as a recurrence within one month. She was then treated to the lower right hemipelvis, inguinal region and upper thigh with telecobalt 60 at 80 cm SSD using parallel opposing fields to a total of 6,000 rads. She tolerated these treatments very well without any evidence of recurrence or disseminated disease. Although there is moderate fibrosis and contraction in the right inguinal region with minimal swelling of the right thigh, this is very well controlled with a Jobst stocking.

## Discussion and Review of the Literature

Differences in opinions regarding the diagnostic cytologic features of histiocytoma are evident in the consolidation of cases from the literature (Table 5). Microscopically, histiocytomas evoke a spectrum of malignant diagnoses varying from rhabdomyosarcoma to malignant melanoma to Grade IV squamous cell carcinoma. They are, nevertheless, reactive lesions. Kauffman and Stout's[3] criteria for the pathologic diagnosis of histiocytoma include multinucleated benign giant cells, tumor giant cells (often bizarre), foam cells, inflammatory cells (usually lymphocytes), anaplasia of stromal cells, mitotic figures (normal or atypical) and granulomatous features. Soule and Enriquez[4] expanded these criteria further as atypical fibrous histiocytomas, malignant fibrous histiocytomas, malignant histiocytomas and epithelioid sarcomas. In their series, the anaplastic appearance of the background or stromal cells was one of the most reliable histologic features of an aggressive clinical course. They showed that although the prototype of cells is fairly well defined, transition or intermediate types occur that may render the classification of a given tumor difficult or uncertain.

Taylor and Helwig[5] reported 115 cases under the label of dermatofibrosarcoma protuberans characterized as a distinctive, raised, cutaneous, fibrous tumor that typically exhibits a marked tendency to recur. With few exceptions, the histologic changes in dermatofibrosarcoma protuberans have received comparatively little attention in the literature, and these tumors are most often described as histologically indistinguishable from the low-grade fibrosarcoma or cellular fibroma occurring in the skin or elsewhere in the body.

The major histologic characteristic of dermatofibrosarcoma protuberans is the arrangement of tumor cells in a cartwheel pattern. Taylor and Helwig[5] reported no evidence of lymph node metastasis and showed a recurrence rate of 50% to 55% in ten to 17 months. However, there are five recorded instances of dermatofibrosarcoma protuberans with

TABLE 4

CONSOLIDATION OF CASES—ELLIS FISCHEL STATE CANCER HOSPITAL

| *Diagnosis Hosp. #* | *Age Sex* | *Initial Appearance* | *Symptom* | *Appearance to Symptom* | *Treatment* | *Follow-up After Treatment* |
|---|---|---|---|---|---|---|
| Dx: Malig. fibrohistiocytoma | 26/m | A mass on posterior aspect of right upper arm | No symptoms except mass | 8 yrs | 1. Total excision in June, 1975 with postoperative radiotherapy using parallel opposing fields, telecobalt 60 which included the entire arm and axillary region to a total of 5,000 rads after which an additional dose of 1,750 rads was given to the area of the lesion | July, 1977, 24 mos after treatment, no evidence of recurrence with no significant radiation sequelae except for minimal fibrosis. |
| Dx: Malig. fibrohistiocytoma | 60/f | A hard movable lump in left inner calf at the level of knee | Growing mass with heat & redness | 6 mos | 1. Excision in Dec. 1975 followed by radiotherapy with telecobalt 60 using parallel opposing fields covering the upper half of the left leg and the lower half of the left thigh to a total of 5,000 rads. The field was then reduced to encompass the primary site of excision with an additional dose of 1,162 rads. Simultaneously, the left inguinal region was treated with an AP field and treated with 5,000 rads at TD 3 cm. | Last follow-up July, 1977, 18 mos without any evidence of recurrence. There is moderate fibrosis in the popliteal area with minimal swelling of the upper half of the left leg. |
| Dx: Malig. fibrohistiocytoma | 87/m | 8 cm lesion in left postauricular area | Growing mass with ulceration involving left mastoid & part of ear | 1 yr | 1. 1958 with the diagnosis of precancerous lesion, treated outside with the 50 kV superficial machine. Treatment repeated in 1959, 1960 and 1964.<br>2. Recurrent lesion biopsy showed squamous cell carcinoma treated with superficial x-ray in the same place in Joplin, Mo., Jan. 5, 1971 and retreated in 1972 and 1974.<br>3. June, 1975, excision retroauricular lesion with rotation of scalp flap and split thickness skin graft. | Last follow-up July, 1977, no evidence of recurrence or distant metastasis and no evidence of significant radiation sequelae except for fibrosis in the retroauricular area. |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Oct., 1975 recurrent lesion with a diagnosis of fibrohistiocytoma. Resection of left ear, partial parotidectomy, partial resection of temporal bone with pedicle flap and split thickness skin graft.<br>5. Postoperative radiotherapy in Nov., 1975 using telecobalt 60, paired wedge technique, 5,000 rads encompassing the lesion and the upper cervical nodes after which the field was reduced to the primary lesion and the dose carried to 7,000 rads. | |
| Dx: Malig. fibrohistiocytoma | 68/m | A lump on right ant. thigh | No symptom except lump | Biopsy was done immediately after appearance of lump | 1. Wide excision with split thickness skin graft in Jan., 1975.<br>2. 1.5 cm x 1 cm recurrence in the upper mid aspect of the skin graft in Apr., 1976 and locally excised with primary skin closure.<br>3. Postoperative radiation therapy in Apr., 1976 with telecolbalt 60 using parallel opposing fields to the lower two-thirds of the right thigh, a total dose of 5,000 rads and then the field reduced to cover the primary site to a total dose of 6,000 rads. The right inguinal region was treated with an AP field to a dose of 5,000 rads at a depth of 3 cm. | No significant radiation sequelae except for minimal fibrosis.<br>Excision of a 1 cm x 1.5 cm recurrent nodule in the lateral aspect of the previously excised area not attached to the skin but attached to the deeper tissues in March, 1977.<br>Wide excision with mesh graft in May, 1977 following histological report of inadequate excision.<br>Last follow-up July, 1977 with progressive filling of skin graft and no evidence of recurrence. |

(Table 4 Continued on page 404)

TABLE 4—*Continued*

| *Diagnosis Hosp. #* | *Age Sex* | *Initial Appearance* | *Symptom* | *Appearance to Symptom* | *Treatment* | *Follow-up After Treatment* |
|---|---|---|---|---|---|---|
| Dx: Fibrohistiosarcoma | 49/f | A mass filled most of rectus femoralis muscle | Mass of right thigh | Biopsy was done immediately after appearance of lump | 1. Removal of mass in Dec., 1972.<br>2. Extended right groin dissection with femoral node resection in June, 1974.<br>3. 6,000 rads TTD to right lower hemipelvis and inguinal region in Aug., 1974. | Last follow-up in May, 1977. At 36 mos, no evidence of recurrence. Edema of right leg and fibrosis of right inguinal area. |
| Dx: Fibrohistiosarcoma | 62/f | Cystic retroperitoneal mass adherent to bladder | Abdominal pain | 3 yrs | 1. Removal of retroperitoneal mass in Dec., 1973.<br>2. Cytoxan, Adriamycin since June, 1975.<br>3. 3,900 rads TGD to left humerus in July, 1975.<br>4. 4,000 rads TTD to right postauricular area in Jan., 1976. | 15 mos after op (metastasis right mastoid area. Right temporal bone lung).<br>18 mos after op (metastasis to left humerus).<br>20 mos after op (metastasis to liver, abdominal wall).<br>21 mos (no change).<br>22 mos (no change).<br>23 mos (no change).<br>Died Aug. 1976; 31 mos after surgery and 13 mos after recurrence. |
| Dx: Xanthogranuloma vs. malignant lymphoma | 52/m | Abdominal distention chylous ascitis & retroperitoneal mass at laparotomy | Weight loss 20 lbs | 2 wks | 1. Laparotomy outside Dec., 1974 malignant lymphoma of retroperitoneal tumor with chylous ascitis.<br>2. Review of path Dec., 1974 xanthogranuloma of the retroperitoneal mass.<br>3. RT Dec. 26, 1974-Feb. 10, 1975 whole abdomen 4080 rads TTD through AP & PA opposing field.<br>4. Chemotherapy April 8, 1975 CTX VCR two courses & DT/C. | 1 mo abdominal girth 5 cm decrease since last measurement.<br>2½ mos 87 cm, no abdominal mass, chemo resumed.<br>3 mos 79 cm, bad side reaction, i.e. nausea and vomiting, discontinue chemo. 6 mos subcutaneous nodule and increasing abdominal mass.<br>7 mos progression of disease, general condition downhill.<br>8 mos died elsewhere. |

CONSOLIDATION OF CASES FROM THE LITERATURE

| *Author* | *Types* | *No. of Cases & Mean Age* | *Site* | *Treatment* | *Local Recurrence* | *Distant Metastasis* | *Lymph Node* | *Survival* | *Adjunct. Treatment* |
|---|---|---|---|---|---|---|---|---|---|
| Soule & Enriquez[4]<br>Mayo Clinic | 1. Atypical fibrohistiocytoma | 18/53 yrs | Extremity—8<br>Retroperitoneum—7<br>Head—2<br>Trachea—1 | ALL CASES:<br>Local excision—43<br>Amputation—22 | 6 | 4 | 4 | 13/18 followed up 5-22 yrs. One died 7 yrs after local excision.<br>12/33 followed up 5-27 yrs<br>4/7 followed up 1-8 yrs. Two patients alive with metastases at 8 & 17 yrs | RT was given postop. to 3 patients & preop. to another 3 patients with malignant fibrohistiocytoma. Multiple bilateral pulmonary nodules were treated in one case with RT and Dactinomycin with total regression, & the patient was well after 6 yrs.<br>The 2nd case was not benefitted by this regimen. Most of the retreatments were wide local excisions with skin graft or amputation. |
| | 2. Malignant fibrous histiocytoma | 33/58 yrs | Extremity—24<br>Trunk—4<br>Retroperitoneum—4<br>Head—1 | | 4 | 12 | 3 | | |
| | 3. Malignant histiocytoma | 7/50 yrs | Extremity—6<br>Trunk—1 | | 2 | 4 | 3 | | |
| | 4. Epithelioid sarcoma | 7/27 yrs | Extremity—6<br>Trunk—1 | | 3 | 3 | 3 | | |
| O'Brien & Stout[8]<br>Columbia Univ. | Malignant fibrous xanthoma | 15/10—85 yrs | Extremity—9<br>Head & neck—3<br>Trunk—1<br>Retroperitoneum—2 | Local excision—15 | 10 | 10 | 6 | 2/13; One with RT had had multiple recurrence & eventually distant metastasis | |
| Enzinger[6] (AFIP) | Epithelioid sarcoma | 62/23 | Extremity—60<br>Head & neck—2 | | 46 | 16 | 6 | 13/42; 8 lost to follow-up. Alive with recurrence—12. Alive with recurrence & metas.—2. Alive with metas.—3. | 2/11 patients alive had received chemotherapy (drug unspecified) and/or RT as an adjuvant to surgery. 16 patients were alive with metastatic disease or died as a result of the disease. 3 received RT & 3 received adjuvant chemotherapy. |
| Bliss & Reed[7]<br>Tulane Univ. | Large cell sarcoma of tendon sheath | 4/45 | Hand, finger, wrist | | 2<br>2 | 3 | 3 | One alive with metastases | |

(Table 5 Continued on page 406)

TABLE 5—*Continued*

| *Author* | *Types* | *No. of Cases & Mean Age* | *Site* | *Treatment* | *Local Recurrence* | *Distant Metastasis* | *Lymph Node* | *Survival* | *Adjunct. Treatment* |
|---|---|---|---|---|---|---|---|---|---|
| Taylor & Helwig[5] | Dermatofibrosarcoma | 115/4—79 yrs.<br>Median—25 yrs | Head & neck —17<br>Trunk—47<br>Extremity—51<br>Reddish or bluish nodules 3 wks to 33 yrs duration<br>Associated with trauma in 17% | | 49 | none | none | | Preop. radiation & postop. radiation did not modify the course of the disease. |

Cases described in the literature on dermatofibrosarcoma protuberance with lymph node and visceral metastases:

1. 2 cases: Przybora and Wojnerowica, Oncologia 12:236-254, 1959;
2. 1 case: Gentele, Acta Dermat-venereol. 27:91-132, 1951;
3. 1 case: Bezceny, Arch. Dermatol. Syphilol. 29:347-353, 1934;
4. 1 case: Sciacchitano, Tumori 9:427-438, 1935.

lymph node and visceral metastases (Table 5). Dermatofibrosarcoma protuberans, arising from histiocytes, are highly malignant with a very high incidence of local recurrence and a propensity for lymph node involvement and distant metastases. Distant metastases involve a wide range of sites including lungs, viscera, bones and soft tissue.

Reporting on 65 patients, Soule and Enriquez[4] noted 73% local recurrences after excision and 19 patients with metastases (13 patients with lymph node metastases and 14 with pulmonary metastases). Only one of our seven cases manifested a slow evolution or growth of the tumor. Of 62 patients with epithelioid sarcoma observed by Enzinger,[6] 54 (87%) experienced a slow, relentless clinical course with frequent recurrence (85%) and late metastases (30%). Soule and Enriquez[4] reported two patients with epithelioid sarcoma alive with proved metastases at eight and 17 years. Bliss and Reed[7] provided four cases in which the tumor showed extensive permeation into lymphatic vessels and produced a clinical picture of cutaneous lymphatic spread and lymphedema. Hematogenous metastasis was prominent and, at autopsy, metastases to the lungs and regional nodes were found.

The histogenesis of these tumors was not known but, cytologically, many of the tumor cells resembled histiocytes. They labeled these tumors as large cell sarcoma of tendon sheaths. Epithelioid sarcoma and malignant fibrohistiocytoma appear to have better prognosis. Also, lesions in the extremities appear to have better prognoses than those in the head and neck or those in the retroperitoneal areas.

## TREATMENT

Excepting dermatofibrosarcoma protuberans, we feel strongly that the management of malignant histiocytoma should consist of a wide local excision followed by adequate radiation therapy. The primary mode of therapy in the series reviewed has been wide local excision. Radiation therapy apparently was used as a last resort. The types of radiation therapy ranged from superficial or orthovoltage to supervoltage x-ray therapy. None of these was detailed adequately in any of the cases reviewed.

If radiotherapy has to be applied, the question of radiosensitivity arises. The histiocyte as a cell is sensitive to radiation. Histiocytosis X and histiocytic granulomatosis have been treated with radiation ranging from 1,500 to 3,000 rads with complete response. Histiocytic lymphoma exhibits a complete response from 3,000 to 5,000 rads.

No one appears to know the response rate of malignant histiocytoma to radiation therapy. This is further complicated by the question as to whether a fibrous element, such as a fibrous histiocytoma or a more cellular element like epithelioid sarcoma, will modify the response of histiocytic cells in the same order as fibrosarcoma. If the response rate is comparable to fibrosarcoma, then 3,000 to 4,000 rads would be an inadequate dose for a preoperative or postoperative course of radiotherapy.

If an umbrella dose of 5,000 to 6,000 rads is to be given, this is easily tolerated in the extremities with small fields. A large field may be required for larger masses and this dose will be complicated by a woody fibrosis and, possibly, a dysfunctional limb which may necessitate a palliative amputation.

In the retroperitoneal areas, there is the handicap of being unable to deliver an adequate dose with conventional therapy due to the overlying viscera. With precision therapy and a combination of photon and electron beam, it is probable to safely deliver a dose of 6,000 rads. This, obviously, will require perfect localization of the tumor volume and immobilization of the patient. Certainly, in view of the high incidence of local recurrence and its propensity for nodal and distant metastases, there is every reason for an aggressive approach to the management of malignant histiocytoma.

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## National Conference to Be Held in Columbia

A conference on Group Relations in Health Care, based on the Tavistock model, will be held at the University of Missouri-Columbia on Dec. 1-3, 1978. The conference is jointly sponsored by the Office of Continuing Education and Extension for the Health Professions and the Department of Psychiatry of the University of Missouri-Columbia and the Texas Center of the A. K. Rice Institute.

The conference is of national interest and is intended for persons in positions of responsibility within health care delivery including those in provider, management and consumer roles. It is designed to provide opportunities for examining relationships between person, role and task within the context of health care groups and institutions and exploring the nature of boundaries between one group and another and between an institution and its environment.

This program is approved for 21.5 hours of AMA Category I credit. For additional information, please contact Elizabeth M. Heimburger, M.D., Director, Group Relations in Health Care Conference, C-6 Medical Center, University of Missouri-Columbia, Columbia, Mo. 65212 or call (314) 882-2511.

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# Adult Burkitt's Lymphoma

## *Case Report*

Burkitt's lymphoma is generally regarded as a neoplasm restricted to children and young adults. In North America, the median age of patients with Burkitt's lymphoma is approximately nine years with a range from two to 30 years.[1-3] A search of the English literature revealed only one previous report in a woman over 30[4] and that case failed to fulfill the World Health Organization (WHO) criteria required for the diagnosis. We report a case of Burkitt's lymphoma occurring in a 38-year-old white woman and discuss the histologic and fine structural features with emphasis on differential diagnosis.

### Case Report

A 38-year-old white woman was admitted to the M. D. Anderson Hospital and Tumor Institute with a three-week history of abdominal pain, oliguria and dyschsia. Physical examination revealed a large mass fixed in the cul-de-sac and extending over the entire left lower quadrant of the abdomen. Admission laboratory studies included a hemoglobin value of 10.6 gm/100 ml, and a white blood cell (WBC) count of 7200/cu mm; the differential was normal. Blood urea nitrogen (BUN) and creatinine were 24 mg/dl and 5 mg/dl, respectively, and uric acid was greater than 12 mg/dl. Total bilirubin was 1.0 mg/100 ml and the serum alkaline phosphatase was 98 mU/ml. Lactic dehydrogenase (LDH) and serum glutamic oxaloacetic transaminase (SGOT) were 580 mU/ml and 160 mU/ml, respectively. Exploratory laparotomy performed two days after admission disclosed a large retroperitoneal mass which encased both ureters and compressed a portion of the sigmoid colon.

**This is a report of a rare case of Burkitt's lymphoma which occurred in a 38-year-old woman. The authors discuss the histologic and ultrastructural features and contrast those of similarly appearing lymphomas. It is noted that Burkitt's tumor has characteristic fine structural features which aid in its separation from other types of malignant lymphoma.**

**Formerly Chief Resident in Anatomic Pathology at the University of Texas System Cancer Center, M. D. Anderson Hospital and Tumor Institute in Houston, Dr. Gillespie was from the Department of Pathology, University of Missouri Medical Center at the time this paper was submitted. He is now in the Department of Pathology, Indiana University School of Medicine. Dr. Giffler is Resident in Pathology at the University of Texas System Cancer Center.**

The liver, spleen and other abdominal organs were normal. The mass was biopsied. Postoperatively, the patient received cyclophosphamide. Twenty-four days after her admission, a bone marrow aspirate showed lymphoma cells. Additional therapy consisting of cytosine arabinoside and intrathecal methotrexate was instituted. The patient subsequently acquired a pseudomonas septicemia which was successfully managed with antibiotics. Forty-nine days after admission, Clostridium septicemia and massive abdominal cellulitis developed and the patient died seven days later. A postmortem examination was performed.

### *Pathologic Findings*

A light microscopic examination of the initial biopsy revealed a malignant neoplasm composed of a monomorphous proliferation of small, noncleaved lymphoid cells (Fig. 1). Reactive histiocytes containing phagocytosed debris were uniformly dispersed throughout the neoplasm ("starry sky" effect). The individual lymphoid cells were uniform in size and shape and exhibited a moderate amount of intensely pyroninophilic cytoplasm which was nonreactive to PAS stain. The ovoid nuclei were identical in size to those of adjacent phagocytes. Nuclear profiles were smooth and regular and two to three small nucleoli were present. Chromatin material was aggregated along the periphery of the nuclear membrane and around the nucleoli. The neoplasm possessed a high mitotic index.

Imprint preparations of the biopsy material revealed large numbers of clear cytoplasmic vacuoles (Fig. 2) which contained Oil Red O positive material.

Ultrastructural examination revealed uniform, rounded cells dispersed in noncohesive fashion and devoid of surface contact sites (Fig. 3). Moderately abundant cytoplasm was electron-dense and contained a monotonous array of polyribosomes; other organelles were not conspicuous. A distinctive feature was the presence of frequent, small lipid droplets distributed throughout the cytoplasm of many of the tumor cells. Nuclei displayed generally smooth profiles with peripheral condensation

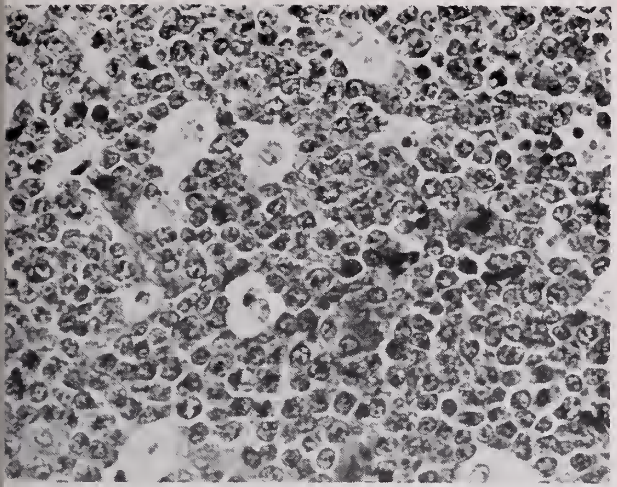

**Fig. 1** Photomicrograph shows typical pattern of Burkitt's lymphoma. Observe uniform nuclei of the same size and shape as those of adjacent histiocytes (H&E × 300).

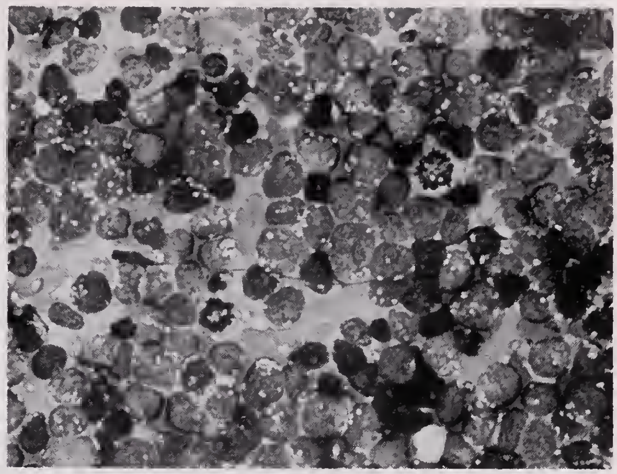

**Fig. 2** Imprint preparation demonstrates numerous clear cytoplasmic vacuoles which contain Oil Red O positive material (Wright × 600).

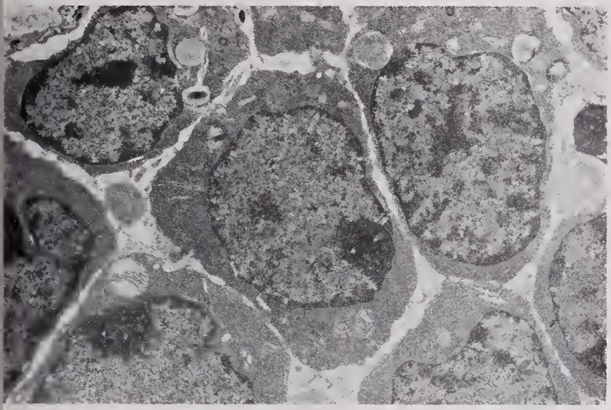

**Fig. 3** Electron photomicrograph of Burkitt lymphoma cells. Note polyribosomes and lipid droplets. The nuclear membranes are regular and are associated with condensed chromatin (glutaraldehyde fixation × 5600).

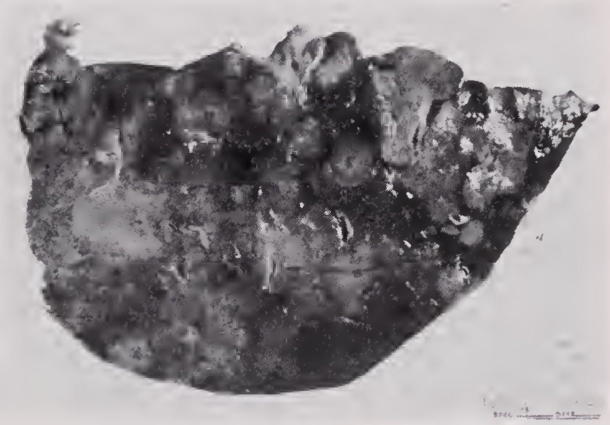

**Fig. 4** Gross photograph of liver obtained from postmortem showing massive involvement by lymphoma.

of chromatin. Two or three centrally placed nucleoli were usually present.

Postmortem examination revealed massive intraabdominal lymphoma involving liver, spleen and lymph nodes. The liver was enlarged (2,400 gm) and was nearly totally replaced by tumor (Fig. 4). The spleen showed only focal disease. Involved lymph nodes measured up to 3 cm in diameter and were located in the retroperitoneal, bilateral iliac and mediastinal regions. Microscopic examination of the neoplasm at this time revealed extensive tumor cell necrosis which obscured morphologic detail. The bone marrow was hypocellular and showed prominent necrosis.

## Discussion

The occurrence of Burkitt's lymphoma in a patient over 30 years of age is exceptional. The oldest patients in the major published series are 14, 16, and 30 years of age.[1–3] It is customary for the diagnosis of Burkitt's lymphoma to be reserved for those lymphomas that meet the histologic criteria established by the WHO.[5] WHO criteria are specific and require[5] (1) tumor cell nuclei identical in size or smaller than those of adjacent histiocytes and displaying regular profiles; (2) uniform, rounded tumor cells with a narrow, but distinct, rim of intensely pyroninophilic cytoplasm which is nonreactive to PAS stain; (3) numerous cytoplasmic vacuoles containing Oil Red O positive material (neutral lipid) as demonstrated by touch preparations; (4) Chromatin aggregated along nuclear membranes and adjacent to nucleoli; (5) two to five moderate-sized nucleoli; (6) high mitotic rate and "starry sky" effect. The present case meets all WHO criteria for Burkitt's lymphoma.

The ultrastructural features of the tumor cells in this case served to confirm the diagnosis of Burkitt's lymphoma and were identical to other Burkitt tumors that we have studied. They also are similar to those reported elsewhere.[6–8] The salient features include moderately sized, rounded cells devoid of surface contact specializations. The cytoplasm is distinctive by containing large numbers of polyribosomes and lipid droplets. Other organelles are inconspicious and include isolated profiles of ribosome-bearing reticulum and a solitary inactive Golgi complex. The nuclear membranes are smooth and regular and often display "bleb" formation. Chromatin material is condensed along the nuclear membrane and around the nucleoli. Nucleoli are usually located centrally, are not unduly large and number two to three.

"Convoluted" cell lymphoma may be confused with Burkitt's tumor by light microscopy.[9-11] By ultrastructural examination, the convoluted cell is smaller than the Burkitt cell and displays only a thin rim of cytoplasm. The cytoplasm is densely packed with unattached monosomes; other organelles and lipid droplets are generally not seen. The nuclei are large in relation to the cytoplasm and display markedly irregular profiles. The chromatin is finely dispersed and nucleoli are small and inconspicious.

Histiocytic lymphoma cells are larger and more pleomorphic than those of Burkitt's lymphoma and possess a greater cytoplasmic volume.[12-15] Cytoplasmic contents are similar though lipid vacuoles are less frequent, and cisternae of ribosome-bearing reticulum are significantly more frequent in the cells of histiocytic lymphoma than those of Burkitt's lymphoma. The chromatin is diffuse in contrast to the heterochromatin margination characteristic of the Burkitt cell. Nucleoli are very large and multiple and are often located adjacent to the nuclear membrane.

Burkitt's tumor has been previously considered an "undifferentiated" lymphoma based upon morphologic criteria.[16] Recent advances have led to functional concepts relating lymphoma cells to their benign counterparts.[10, 14] Burkitt's lymphoma is now believed to fall within the category of "small noncleaved cell" lymphoma using the functional classification of Lukes and Collins.[10] The noncleaved cells (in contrast to the cleaved cells) are thought to form the actively proliferating component of the follicular center[10] and have been shown by immunologic and morphologic studies to derive from small lymphocytes.[10, 17]

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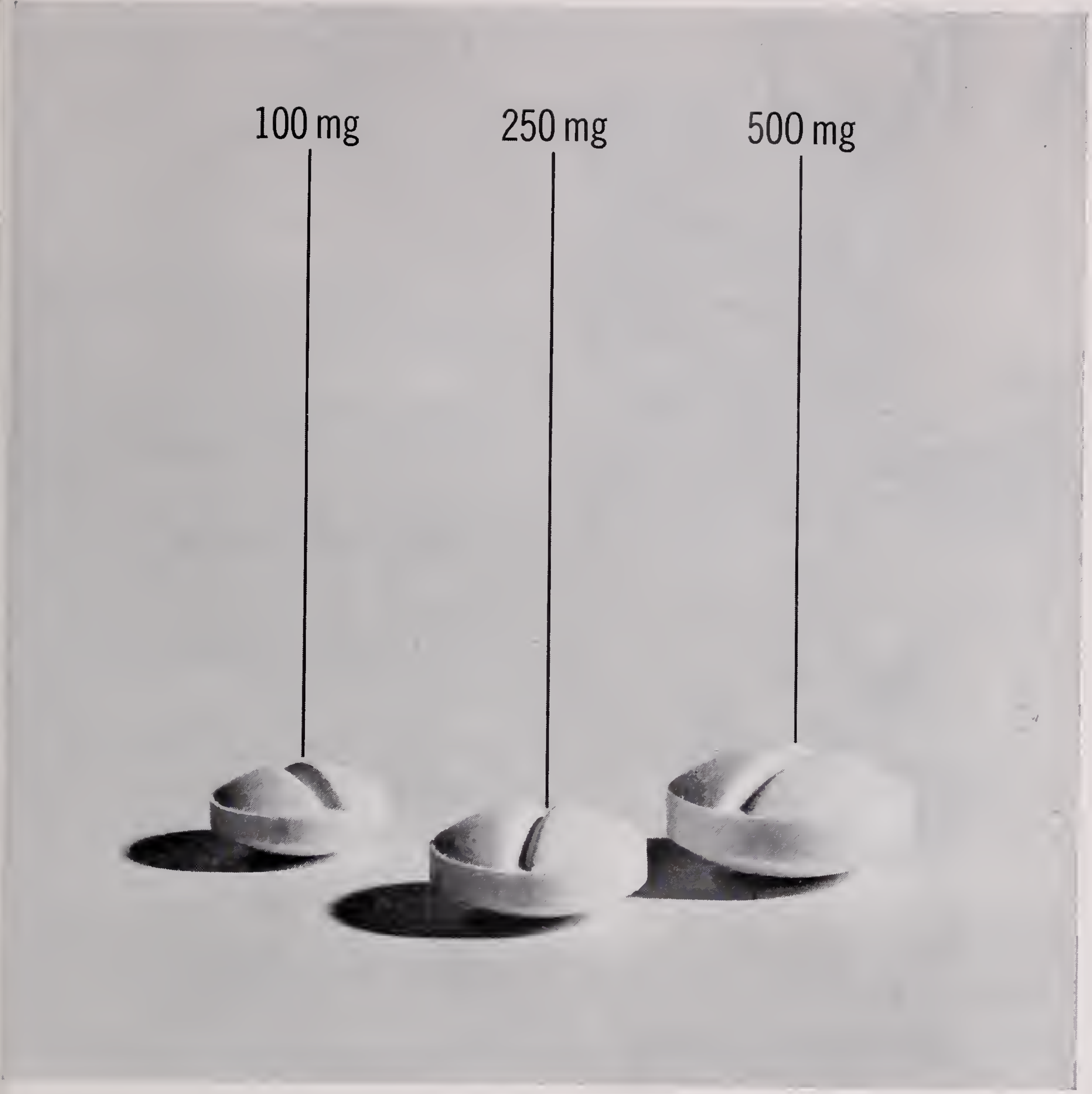
The Third National Conference on Impaired Physicians will be on September 29-October 1 in Minneapolis. The meeting will be sponsored by the AMA in cooperation with the Minnesota State Medical Association.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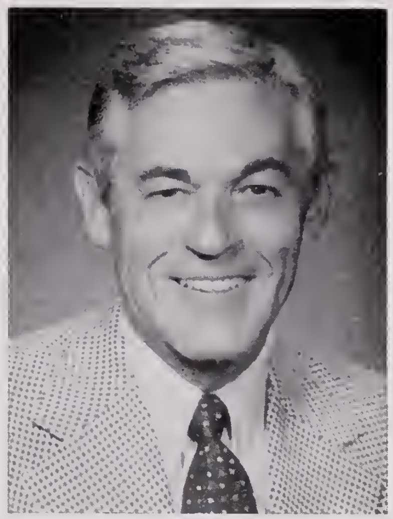
# President's Message



**John N. Martin, M.D.**

HE said he would balance the budget.

HE smiles a lot.

HE appointed Califano.

HE "got rid of" the Panama Canal.

HE has failed to conquer anarchy.

HE is one of the best-dressed men in America.

HE has not reduced crime.

"HE knows politics, which is the art of looking for trouble, finding it everywhere, diagnosing it incorrectly and applying the wrong remedies." (A quote of Groucho Marx).

HE wears sweaters.

HE didn't acknowledge my letter when I sent Don Herald's suggestion that "one thing this country needs is a clearing house for coat hangers."

HE really doesn't enjoy violin playing.

"HE that is good for making excuses is seldom good for anything else." (Benjamin Franklin).

HE does eat peanuts.

"HE uses statistics as a drunken man uses lamp posts—for support rather than for illumination." (Andrew Long).

HE is not a friend of the medical or law professions.

HE has not reduced the cost of government.

HE sees that his image has slipped.

HE has hired a PR man at $56,000 a year, courtesy of the beleaguered taxpayer.

HE needs this sign in his office: "Caution—be sure brain is engaged before putting mouth in gear."

HE promised to put forward a comprehensive universal health insurance program.

HE HAW! !

# MSMA Auxiliary

## The Privilege of Doing

The MSMA Auxiliary theme for the year 1978-1979 is *The Privilege of Doing.* It comes from words spoken by Dr. Albert Schweitzer when he said:

> *It is not enough to merely exist. You must give some time to your fellow man. Even if it is a little thing, do something for those who need man's help for which you get no other pay but the privilege of doing.*

**Mrs. A. J. Campbell**
**President**

These words have been an inspiration to me as we have made plans for the busy year ahead. I'm excited about our auxiliary. Keeping our theme in mind, here are some of the important programs we offer for our communities:

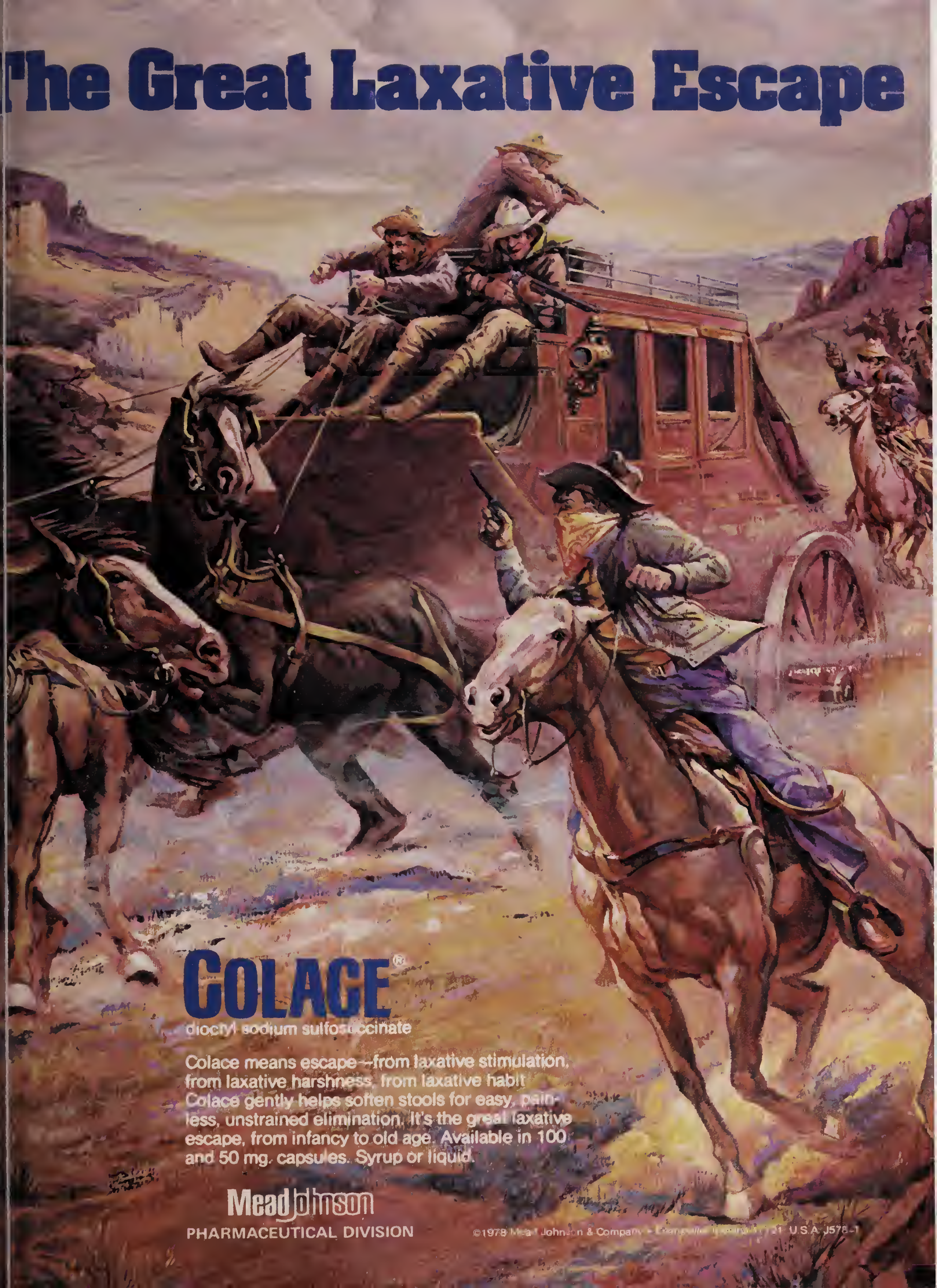
- —Lifesaving Programs—The Heimlich Maneuver and our outstanding CPR program.
- —Health Education Programs—Continued cooperation with the Division of Health on immunization of children with emphasis this year on immunizing the preschool children.
- —Financial Support for Medical Students—Continued and increased support of the AMA-ERF and the Missouri State Medical Foundation.

This year, we have added a new ongoing program which shows our concern for emergency medicine by investigating ways in which the auxiliary can help to hasten implementation of the "911" emergency number throughout the state.

In addition to these statewide programs, the county auxiliaries also plan and implement numerous programs designed to meet their communities' individual needs.

That's not all! Our major thrust this year will be made in the fields of legislation and membership. So, please stay tuned. This is just the first part of an exciting three-part story.

*(To be continued.)*



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**Precautions:** Use with caution in patients with cardiac disease, hepatic or renal impairment. Concurrent administration with certain antibiotics, i.e. clindamycin, erythromycin, troleandomycin, may result in higher serum levels of theophylline. Plasma prothrombin and factor V may increase, but any clinical effect is likely to be small. Metabolites of guaifenesin may contribute to increased urinary 5-hydroxyindoleacetic acid readings, when determined with nitrosonaphthol reagent. Safe use in pregnancy has not been established. Use in case of pregnancy only when clearly needed.

**Adverse Reactions:** Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 $\mu$g/ml.

**How Supplied:** Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon. See package insert for complete prescribing information.

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# Physicians Still Care for Patients Who Cannot Pay

Physicians still adhere to the principle of caring for all patients, regardless of ability to pay, an American Medical Association opinion poll of doctors indicates.

Most physicians continue to reduce their fees or provide free care to patients who can't pay, according to the poll report in the July Impact section of *American Medical News.*

When the need exists, physicians regard it as their ethical professional responsibility to provide services, the poll reveals.

Until the mid-1960s when Medicare and Medicaid legislation was enacted to reimburse physicians for services to the aged and to the medically indigent, 97% of all responding physicians said they cared for patients without charge or at reduced fees. Even now, with the government programs in place for more than a decade, 83.4% of those responding to the Impact survey say they bill the patient but let the bill run without pressure for payment, 30.5% say they reduce the bill and 18.5% say they send no bill at all.

The majority of physicians (67%) were not enthusiastic about the net effect of efforts to turn every patient into a "paying patient" through various government programs.

Two out of three MDs believe the general result has been negative. These doctors say the programs have led to overutilization of medical service and facilities, greatly increased medical costs, eroded the doctor-patient relationship and destroyed patients' dignity and incentive to take personal responsibility for their own health. Only 13% of doctors see the net effect of government programs as generally good.

Bureaucratic red tape makes the programs "theoretically good, but practically bad," said one doctor.

# AMA to Offer National Occupational Health Congress

The 38th Annual Congress on Occupational Health of the American Medical Association will be held September 14-16 at Tucson, Ariz.

The Congress will be held in cooperation with the University of Arizona Health Sciences Center, and the sessions will be held at the Center.

The Congress program is geared to update physicians on the latest developments in occupational health. It is open to all health professionals and is geared particularly to the interests of the part-time occupational physician.

For the first time, this conference will focus on the medical student and resident physician.

One of the highlights will be an award luncheon honoring Braxton B. Wannamaker, of Charlestown, S. C., as the "Physician of the Year," chosen by the President's Committee on Employment of the Handicapped. Luncheon speaker will be Charles A. Berry, M.D., former physician to the U. S. astronauts and now medical director and chairman, Houstonian Preventive Medical Center, in Texas.

The Congress is co-sponsored by the National Institute for Occupational Safety and Health. Proceedings will be edited by the AMA and published by NIOSH.

Congress sessions will center on such topics as reproductive disorders of male and female workers, case studies in occupational health, injuries to hands and feet, pesticides, pulmonary diseases, occupational health services to small businesses, arthritis, medical student occupational health projects, and occupational medicine training for resident physicians.

Further information on the Congress is available from the Department of Environmental, Public and Occupational Health, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610.

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# New Members

**James T. Arnold**, M.D., Medical Arts Bldg., Joplin 64801, has become a member of Jasper County Medical Society. Dr. Arnold is a native of Liberty, Tex., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1970. He specializes in radiology.

**Scott R. Barrett, Jr.**, M.D., 1083 Fruit Tree Lane, St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Barrett is a native of St. Louis, received his preliminary education at Lincoln University, Pa. and his M.D. degree at Howard University in 1975. He specializes in obstetrics and gynecology.

**Richard J. Bower**, M.D., 4960 Audubon, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Bower is a native of Louisiana, received his preliminary education at Northern Illinois University and his M.D. degree at the University of Virginia in 1969. He specializes in pediatric surgery.

**David E. Braverman**, M.D., 8000 Sagamore, Shawnee Mission, Kan. 66205, has become a member of Jackson County Medical Society. Dr. Braverman is a native of Detroit, Mich., received his preliminary education at the University of Michigan and his M.D. degree at Wayne State University in 1972. He specializes in pediatric ophthalmology.

**Tuan-Chou Cheng**, M.D., 1017 Kenwood, Kennett 63857, has become a member of Dunklin County Medical Society. Dr. Cheng is a native of Taipei, Taiwan, received his preliminary education at Taipei Medical College and his M.D. degree at Taipei Medical College in 1967. He specializes in urology.

**Eric J. Flug**, M.D., 12166 Big Bend Blvd., St. Louis 63122, has become a member of St. Louis Medical Society. Dr. Flug is a native of Brooklyn, N. Y., received his preliminary education at Brooklyn College and his M.D. degree at St. Louis University in 1975. He specializes in pediatrics.

**Oscar S. Gluck**, M.D., 216 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Gluck is a native of Colombia, received his preliminary education at College Jorge Isaacs and his M.D. degree at Universidad Del Valle. He specializes in internal medicine.

**John A. Hamilton**, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Hamilton is a native of St. Louis, received his preliminary education at the University of Michigan and his M.D. degree at St. Louis University in 1976. He specializes in obstetrics and gynecology.

**Frederick C. Husted**, M.D., 1550 E. Sunshine, Springfield 65806, has become a member of Greene County Medical Society. Dr. Husted is a native of Unionville, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1968. He specializes in nephrology.

**Roger L. Jackman**, M.D., Rt. 6, Box 901, Poplar Bluff, 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Jackman is a native of Corry, Pa., received his preliminary education at Allegheny College and his M.D. degree at the University of Pennsylvania in 1958. He specializes in internal medicine.

**Arthur C. Jones III**, M.D., 830 Kings Cliff Rd., St. Louis 63122, has become a member of St. Louis Medical Society. Dr. Jones is a native of Washington, D. C., received his preliminary education at the College of Idaho and his M.D. degree at Tulane University in 1973. He specializes in otolaryngology.

**L. Joseph Kennington**, M.D., Department of Family Practice, St. John's Hospital, St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Kennington is a native of St. Louis, received his preliminary education at Spring Hill College, Ala. and his M.D. degree at the University of Missouri-Columbia in 1975. He specializes in family practice.

**Theodore C. N. Kiekhaefer**, M.D., Methodist Medical Center, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Kiekhaefer is a native of Cole Camp, received his preliminary education at the University of Nebraska and his M.D. degree at the University of Nebraska in 1962. He specalizes in family practice.

**Won M. Kim**, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Kim is a native of Seoul, Korea, received his preliminary education at Seoul National University and his M.D. degree at the Seoul National University in 1964. He specializes in anesthesiology.

**Yew-Soong Lee,** M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Lee is a native of Singapore, received his preliminary education at Washington University and his M.D. degree at the St. Louis University in 1976. He specializes in neurology.

**James L. Lord, Jr.,** M.D., 1515 W. Truman Rd., Suite 504, Independence 64050, has become a member of Jackson County Medical Society. Dr. Lord is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in family medicine.

**Maria M. Lyskowski,** M.D., 3038 Westfield, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Lyskowski is a native of Poland, received her preliminary education at the University of Breslan and her M.D. degree at the University of Hamburg in 1949. She specializes in psychiatry.

**Carla N. McElroy,** M.D., St. Mary's Hospitial, 101 Memorial Dr., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. McElroy is a native of St. Louis, received her preliminary education at William Jewell College and her M.D. degree at the University of Missouri in 1970. She specializes in emergency medicine.

**Hywel Madoc-Jones,** M.D., 4511 Forest Park Blvd., Suite 311, St. Louis 63108, has become a member of St. Louis Medical Society. Dr. Madoc-Jones is a native of Wales, U. K., received his preliminary education at Oxford University and his M.D. degree at the University of Chicago in 1973. He specializes in radiotherapy.

**Jeffrey L. Marsh,** M.D., 500 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Marsh is a native of Los Angeles, Calif., received his preliminary education at Johns Hopkins University and his M.D. degree at Johns Hopkins University in 1970. He specializes in plastic surgery.

**David R. Marty,** M.D., 606 Dix Rd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Marty is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri in 1974. He specializes in otorhinolaryngology and facial plastic surgery.

**Maria Aracel Mendez,** M.D., 1900 S. National, Springfield 65804, has become a member of Greene County Medical Society. Dr. Mendez is a native of the Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1971. She specializes in psychiatry.

**Barry D. Milder,** M.D., 211 N. Meramec Ave., Clayton 63105, has become a member of St. Louis County Medical Society. Dr. Milder is a native of St. Louis, received his preliminary education at the Massachusetts Institute of Technology and his M.D. degree at Washington University in 1973. He specializes in ophthalmology.

**Kenneth Mitchell,** M.D., 660 South Euclid, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Mitchell is a native of New York, received his preliminary education at Brooklyn College and his M.D. degree at New York Medical College in 1973. He specializes in ophthalmology.

**Jerome A. Molitor,** M.D., 13427 Land O Woods, Creve Coeur 63141, has become a member of St. Louis County Medical Society. Dr. Molitor is a

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native of Oak Park, Ill., received his preliminary education at St. Procopius School and his M.D. degree at St. Louis University in 1968. He specializes in radiology.

Laurence W. **Muench,** M.D., 142 Research Medical Office Bldg., 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Muench is a native of St. Louis, received his preliminary education at Trinity College and his M.D. degree at Washington University in 1962. He specializes in anesthesiology.

**Norman Mutchnick,** M.D., 601 East 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Mutchnick is a native of Philadelphia, Pa., received his preliminary education at Temple University and his M.D. degree at Hahnemann Medical College in 1970. He specializes in general, thoracic and vascular surgery.

**Charles Parks,** M.D., 4919 Forest Park Blvd., St. Louis 63108, has become a member of St. Louis Medical Society. Dr. Parks is a native of Wahiawa, Hawaii, received his preliminary education at the University of South Dakota and his M.D. degree at Washington University in 1969. He specializes in general surgery.

**Flavius G. Pernoud,** M.D., 6735 Westway Rd., St. Louis 63109, has become a member of St. Louis Medical Society. Dr. Pernoud is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1973. He specializes in ophthalmology.

**Joan M. Pernoud,** M.D., 6735 Westway Rd., St. Louis 63109, has become a member of St. Louis Medical Society. Dr. Pernoud is a native of St. Louis, received her preliminary education at St. Louis University and her M.D. degree at St. Louis University in 1974. She specializes in ophthalmology.

**Susan K. Pingleton,** M.D., University of Missouri School of Medicine, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Pingleton is a native of Ellsworth, Kan., received her preliminary education at the University of Kansas and her M.D. degree at the University of Kansas in 1972. She specializes in pulmonary disease.

**Abdul R. Qureshi,** M.D., 10004 Kennerly Rd., St. Louis 631728, has become a member of St. Louis County Medical Society. Dr. Qureshi is a native of Kuhlu, Pakistan, received his preliminary education at Government College in Pakistan and his M.D. degree at King Edward Medical College in 1964. He specializes in internal medicine and cardiology.

**Perry G. Rawson,** M.D., St. Francis Mercy Hospital, Washington 63090, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Rawson is a native of Grand Rapids, Mich., received his preliminary education at Calvin College and his M.D. degree at Washington University in 1964. He specializes in anatomic and clinical pathology.

**Martha A. Reed,** M.D., Jefferson Square Shopping Center, DeSoto 63020, has become a member of Jefferson County Medical Society. Dr. Reed is a native of Chesterfield, received her preliminary education at the University of Missouri-Columbia and her M.D. degree at St. Louis University in 1975. She specializes in internal medicine.

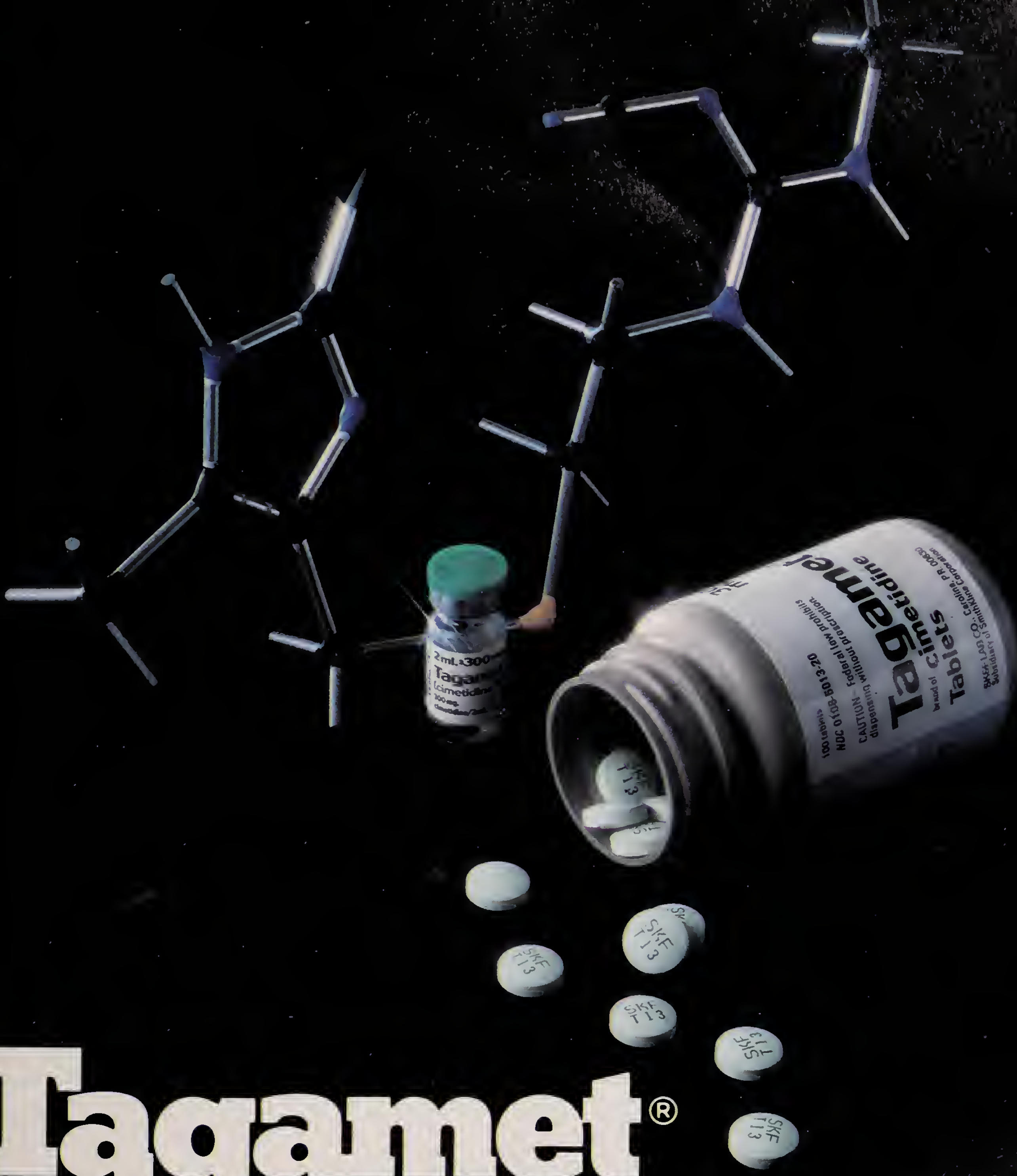
**Joseph Ruwitch,** M.D., 6101 Queeny Tower, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Ruwitch is a native of St. Louis, received his preliminary education at Dartmouth College and his M.D. degree at Washington University in 1966. He specializes in cardiology.

**Joseph G. Sandza,** M.D., 216 S. Kingshighway, St. Louis 63110 has become a member of St. Louis Medical Society. Dr. Sandza is a native of Evanston, Ill., received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Puerto Rico in 1969. He specializes in cardiothoracic surgery.

**Joseph C. Sapala,** M.D., 601 S. Brentwood, St. Louis 63105, has become a member of St. Louis Medical Society. Dr. Sapala is a native of Detroit, Mich., received his preliminary education at Wayne State University and his M.D. degree at the University of Louisville in 1967. He specializes in pathology.

**Barrett A. Schaefer,** M.D., 777 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Schaefer is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri-Columbia in 1968. He specializes in radiology.

**Daniel Scharf,** M.D., 4949 Rockhill Rd., Menorah Medical Center, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Scharf is a native of Brooklyn, N. Y., received his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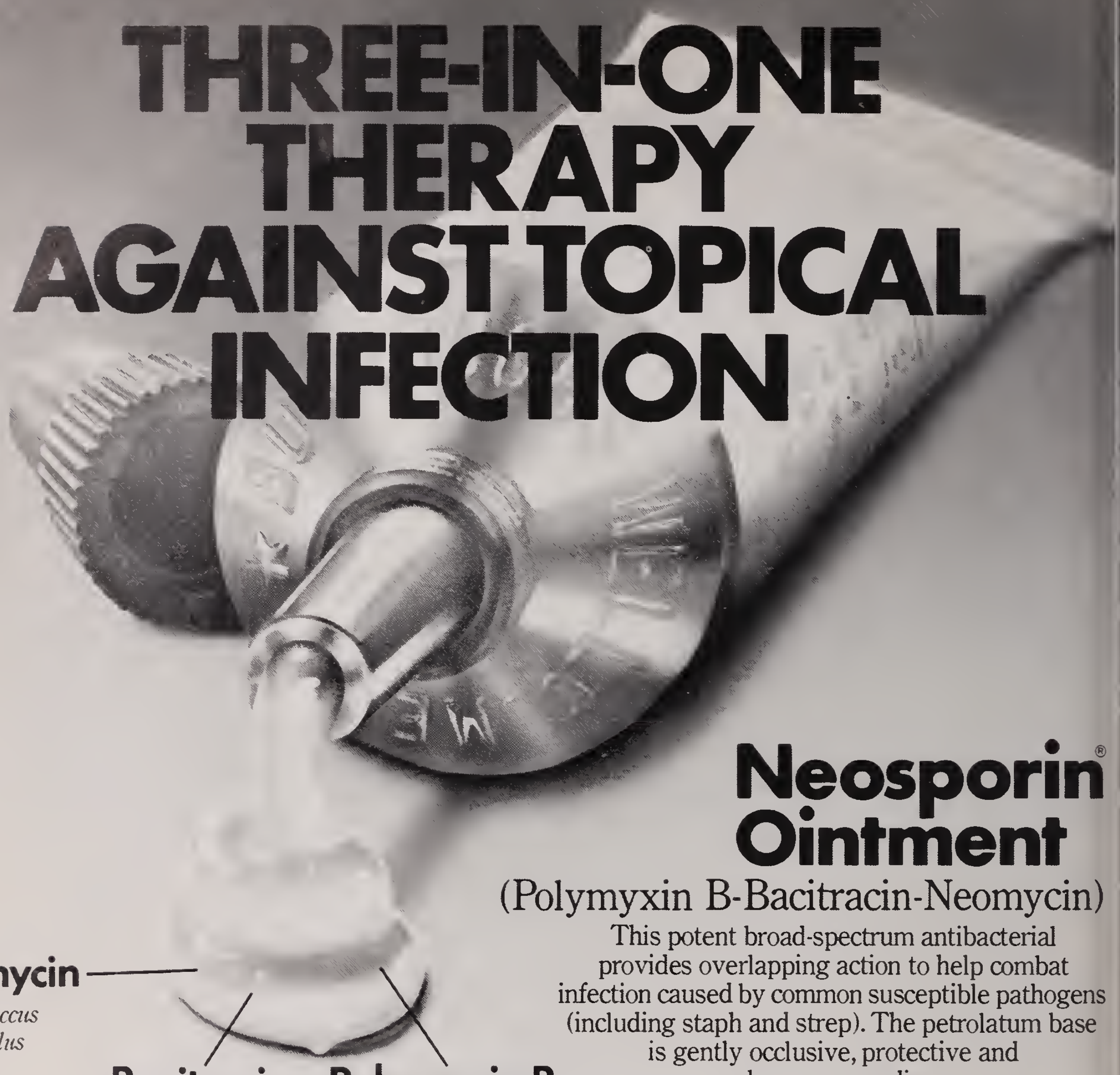

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When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

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**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

preliminary education at Rensselaer Polytechnic Institute and his M.D. degree at Albany Medical College in 1970. He specializes in internal medicine and cardiology.

**Jeffrey Schulman,** M.D., 522 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Schulman is a native of Louisville, Ky., received his preliminary education at Yale University and his M.D. degree at the University of Kentucky in 1974. He specializes in allergy and immunology pediatrics.

**Cyril M. Sliom,** M.D., Department of Anesthesiology, Jewish Hospital, St. Louis 63178, has become a member of St. Louis County Medical Society. Dr. Sliom is a native of Pretoria, South Africa, received his preliminary education in South Africa and his M.D. degree at the University of Witwatersrand, Johannesburg in 1947. He specializes in anesthesiology.

**Elizabeth B. Troxil,** M.D., 1000 E. Elm, Apt. 3, Springfield 65806, has become a member of Greene County Medical Society. Dr. Troxil is a native of Holdingford, Minn., received her preliminary education at the College of St. Benedict and her M.D. degree at the University of Minnesota in 1943. She is in general practice.

**D. M. Upadhyaya,** M.D., 6150 Oakland, St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Upadhyaya is a native of Dangarwa, India, received his preliminary education at Gujarat University and his M.D. degree at M.G.M. Medical College in 1969. He specializes in obstetrics and gynecology.

**Nila A. Villafuerte,** M.D., 232 South Woods Mill Rd., Chesterfield 63017, has become a member of St. Louis Medical Society. Dr. Villafuerte is a native of the Philippines, received her preliminary education in Batangas, Philippines and her M.D. degree at the University of Santo Tomas in 1965. She specializes in anesthesiology.

**Bruce Stoliar,** M.D., 11115 New Halls Ferry Rd., Florissant 63033, has become a member of St. Louis County Medical Society. Dr. Stoliar is a native of St. Louis, received his preliminary education at the University of Texas and his M.D. degree at Tulane University in 1967. He specializes in urology.

**Rajkumar K. Warrier,** M.D., Pointe Basse Mall, Ste. Genevieve 63670, has become a member of Perry-Ste. Genevieve County Medical Society. Dr. Warrier is a native of India, received his preliminary education at Victoria College and his M.D. degree at the University of Kerala in 1969. He specializes in internal medicine.

**Leo A. Whiteside,** M.D., 4960 Audubon Ave., St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Whiteside is a native of Pampa, Tex., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Texas Southwestern in 1969. He specializes in orthopedic surgery.

**Robert Yoselevsky,** M.D., 3660 Vista, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Yoselevsky is a native of Norwich, Conn., received his preliminary education at the University of Connecticut and his M.D. degree at St. Louis University in 1974. He specializes in ophthalmology.

**Hong Yee Yu,** M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Yu is a native of Taipei, Taiwan. He received his M.D. degree at Taipei Medical College in 1971. He specializes in anesthesiology.

# In Memoriam

**Maurice E. Cooper,** M.D., 1000 Wayne Rd., Columbia 65201; a graduate of Rush Medical College, 1929; member of Boone County Medical Society; age 76; died June 29, 1978.

**Raul Mercado, Jr.,** M.D., 1325 S. Grand, St. Louis 63104; a graduate of St. Louis University School of Medicine, 1951; member of St. Louis Medical Society; age 48; died June 6, 1978.

**John D. Rigdon,** M.D., 201 College, Kennett 63857; a graduate of the University of Missouri-Columbia, 1974; member of Dunklin County Medical Society; age 34; died June 5, 1978.

**William B. Rost,** M.D., 2221 N.W. Extension Blvd., St. Joseph 64506; a graduate of Creighton University, 1937; member of Buchanan County Medical Society; age 66; died June 30, 1978.

**Henry C. Westerman,** M.D., 597 Purdue, St. Louis 63130; a graduate of Washington University, 1925; member of St. Louis Medical Society; age 76; died May 31, 1978.

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The Missouri Department of Mental Health is seeking superintendents for a large and a medium size state hospital at St. Louis State Hospital, St. Louis, Missouri, and Farmington State Hospital, Farmington, Missouri, respectively. These are administrative and medical positions involving treatment of patients and hospital operations for professional and hospital support staffs.

Qualifications include certification or proof of eligibility for certification in psychiatry by the American Board of Psychiatry and Neurology or completion of five-year psychiatric career residency program of the Missouri Department of Mental Health, supplemented by three years of clinical experience in psychiatry in an approved hospital or clinic for the mentally ill or in an institution for the mentally retarded, of which one year must have been in a supervisory or administrative capacity. Substitution for these qualifications will be given to a valid certificate issued by the American Psychiatric Association Committee on Certification of Mental Hospital Administrators or possession of a specialty board certificate issued by the American Medical Association or American Osteopathic Association, supplemented by five years of administrative experience as a Clinical Director, Medical Director, Assistant Medical Director or Chief of Staff at an approved hospital or center serving mentally ill, developmentally disabled or substance abuse patients. Qualifying certificates issued by other countries may be acceptable on an individual basis. Applicants must be able to secure a license to practice medicine in the state of Missouri. Annual salary range is $48,127 to $55,422, plus housing.

**Applications Must Be Received by Sept. 30, 1978**

**SEND CURRICULUM VITAE/RESUME**

Send curriculum vitae/resume to C. Duane Hensley, Ph.D., Director, Department of Mental Health, 2002 Missouri Boulevard, Jefferson City, Missouri 65101 or Henry V. Guhleman, Jr., M.D., Director, Division of Comprehensive Psychiatric Services, Department of Mental Health, 2002 Missouri Boulevard, Jefferson City, Missouri 65101 (314/751-3944).

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OB-GYN TEAM—Needed for Salem, Missouri. Community of 5,000 plus, practice area of 15,000-20,000. Located in the beautiful Ozarks. Modern 50-bed, JCAH hospital. Presently, there are no Ob-Gyn physicians in the area. National Forests, streams, trout fishing, golf, etc. Contact Ed Farnsworth, Salem Memorial District Hospital, P.O. Box 430, Hwy. 72 North, Salem, Missouri 65560. (314) 729-6626.

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KANSAS CITY GROUP—HAS practice opportunities for internal medicine, OB-GYN, ENT, ophthalmology and family practice associates. Multi-site centers and expanding practice base indicate openings throughout the 1978-1979 year. Please send CV in confidence to Dr. Ronald Hammerle, Health Resources, Letd Ltd., 2700 Hospital Drive, Box 12621, Kansas City 64116.

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LOCUM TENENS-EMERGENCY MEDICINE—Available in our 100 hospitals; monthly scheduling is flexible and according to your preferences; malpractice is paid; excellent hourly income according to your flexibility and hours worked. Call toll free 1-800-325-3982, Ext. 220 for details.

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EMERGENCY DEPARTMENT PHYSICIAN—Near Kansas City; join our group in the Ultra Modern Emergency Department at Methodist Medical Center, St. Joseph, Mo., near Kansas City. Outstanding working conditions; minimum guarantee $50,000-$60,000 plus overage distribution; rotating schedule. In Missouri, call (314) 878-2280; other locations, call toll free 1-800-325-3982.

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O'FALLON, MO.—2M sq. ft. office built for medical practice. In building with Pharmacy. Building owned by pharmacy owner. Very favorable rent. Available approximately November 1. Write to CA Box Missouri State Medical Association, P.O. Box 1028, Jefferson City, Mo. 65102.

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INTERNAL MEDICINE—Or family physicians for new Ambulatory Care Program. Primary care, administrative medicine and/or limited emergency medicine. University affiliated. Contact Chief of Staff Office, Veterans Administration Hospitial, 4801 Linwood Blvd., Kansas City, MO 64128 or call (816) 861-4700. An Equal Opportunity Employer.

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FAMILY PRACTICE—Solo Board Certified family practitioner is seeking a family practice associate in growing community 6 miles north of Kansas City International Airport. Contact Carl. M. Myers, M.D., Platte Medical Clinic. Platte City, Mo. 64079. (816) 431-2200.

# Missouri Medicine in Review

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

After 15 years of litigation in state and federal courts, the case against fraudulent substitutes for milk now appears to be definitely closed. In a six to one decision on April 25, the United States Supreme Court held the Federal Filled Milk Act of 1932 unconstitutional. The decision established the power of Congress to exclude from interstate commerce fraudulent substitutes of milk or cream whose use in the states for which they were destined are conceived to be injurious to the public health.

Dr. Frank D. Dickson, Kansas City, was elected president-elect of the American Orthopedic Association at the Atlantic City session.

Dr. Avery P. Rowlette, St. Louis, received the annual award of the Young Men's Division of the St. Louis Chamber of Commerce for performing the most outstanding civic service during the preceding year. Dr. Rowlette is medical director of the St. Louis City Hospital.

The Missouri Chapter for the Advancement of Gastro-Enterology held its annual meeting in the St. Louis Medical Society Auditorium in April. The following officers were elected: Dr. Frank D. Gorham, St. Louis, president; Dr. W. J. Siebert, St. Louis, vice-president; Dr. L. P. Gay, St. Louis, treasurer; and Dr. H. L. Joslyn, St. Louis, secretary.

## TWENTY-FIVE YEARS AGO

Apparently, a superior gallbladder dye, Telepaque, is recommended by Wendell G. Scott, M.D. and Wayne A. Simril, M.D. of St. Louis. Their observations in *The American Journal of Roentgenology* indicate that the new dye is considerably more dependable than earlier dyes and produces fewer side reactions.

At a meeting of the MSMA Auxiliary, Mrs. C. Alex McBurney of Slater was installed as president. Mrs. W. E. Martin, Odessa, is president-elect. Vice-presidents are Mrs. Norton Eversoll and Mrs. Guy Magness, St. Louis; Mrs. Robert Duncan, Springfield; and Mrs. Joseph Fisher, St. Joseph. Mrs. Victor B. Buhler, Kansas City, recording secretary; Mrs. Frank B. Leitz, Kansas City, treasurer; and Mrs. H. C. Bauman, Maryville, auditor, complete the roster of new officials.

University of Missouri Alumni Association officers recently elected are Drs. Martyn Schattyn, St. Louis, president; Terry E. Lilly, Kansas City and Pete Siegel, Smithton, vice-presidents; and M. D. Overholser, Columbia, secretary-treasurer.

Moberly's J. Will Fleming, M.D. is the new president of the Missouri Heart Association. He succeeds Don Carlos Peete, M.D., Kansas City. Other officers are Drs. Julius Jenson, St. Louis, president-elect; Earl L. Loyd, Jefferson City, vice-president; Walter Baumgarten, St. Louis, secretary; and Harry L. Wuerth, treasurer.

## TEN YEARS AGO

Dr. William D. Mayer, dean of the University of Missouri-Columbia School of Medicine, is among 20 newly appointed deans of medical schools in the United States and Canada who participated in a seminar sponsored by the Association of American Medical Colleges on Wilmington Island, Ga. on April 28-May 1. At age 39, Dr. Mayer is the youngest dean of a medical school in the nation. He assumed these administrative duties last July 1 when Dr. Vernon E. Wilson, former dean and director of the University Medical Center, became consultant on health affairs to the president of the University.

Dr. Raymond A. Muether, associate professor of internal medicine at the St. Louis University School of Medicine, was the recipient of the Third Ralph A. Kinsella, Sr. Award given annually to a distinguished alumnus, professor and researcher by the Lambda Chapter of Phi Beta Pi Medical Fraternity.

Approximately 2,500 people from Washington and surrounding area gathered to honor Dr. John P. Post at a testimonial reception given for him by his friends, patients and former patients in recognition of his "long and faithful service in Washington." He received a surprise gift of $1,000 from Mr. Gordon Coats of near Augusta for five wheel chairs for St. Francis Hospital.

ROCHE

# For recurrent attacks of urinary tract infection in women

# Bactrim™ DS Double Strength Tablets

ach tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

## ust one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps liminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum elps eradicate recurrent UTI
- Low incidence of bacterial resistance in community ractice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

**efore prescribing, please consult complete product informa- on, a summary of which follows:**

**Indications and Usage: For the treatment of urinary tract fections due to susceptible strains of the following or- anisms:** *Escherichia coli, Klebsiella-Enterobacter, Proteus irabilis, Proteus vulgaris, Proteus morganii.* **It is recommended at initial episodes of uncomplicated urinary tract infections e treated with a single effective antibacterial agent rather an the combination.** *Note:* The increasing frequency of resis- nt organisms limits the usefulness of all antibacterials, espe- ially in these urinary tract infections.

**Also for the treatment of documented *Pneumocystis arinii* pneumonitis. To date, this drug has been tested only in atients 9 months to 16 years of age who were immunosup- ressed by cancer therapy.**

The recommended quantitative disc susceptibility method *ederal Register,* 37:20527-20529, 1972) may be used to esti- ate bacterial susceptibility to Bactrim. A laboratory report of usceptible to trimethoprim-sulfamethoxazole" indicates an infec- on likely to respond to Bactrim therapy. If infection is confined to e urine, "Intermediate susceptibility" also indicates a likely re- ponse. "Resistant" indicates that response is unlikely.

**Contraindications:** Hypersensitivity to trimethoprim or sul- namides; pregnancy; nursing mothers; infants less than two onths of age.

**Warnings:** Deaths from hypersensitivity reactions, agran- ocytosis, aplastic anemia and other blood dyscrasias have been ssociated with sulfonamides. Experience with trimethoprim is uch more limited but occasional interference with hematopoiesis as been reported as well as an increased incidence of throm- openia with purpura in elderly patients on certain diuretics, rimarily thiazides. Sore throat, fever, pallor, purpura or jaundice ay be early signs of serious blood disorders. Frequent CBC's e recommended; therapy should be discontinued if a signifi- antly reduced count of any formed blood element is noted.

**Precautions:** Use cautiously in patients with impaired renal hepatic function, possible folate deficiency, severe allergy or ronchial asthma. In patients with glucose-6-phosphate dehy- rogenase deficiency, hemolysis, frequently dose-related, may ccur. During therapy, maintain adequate fluid intake and perform equent urinalyses, with careful microscopic examination, and nal function tests, particularly where there is impaired renal nction.

**Adverse Reactions:** All major reactions to sulfonamides and methoprim are included, even if not reported with Bactrim. *ood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblas- anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, ypoprothrombinemia and methemoglobinemia. *Allergic reac- ns:* Erythema multiforme, Stevens-Johnson syndrome, eneralized skin eruptions, epidermal necrolysis, urticaria, serum ckness, pruritus, exfoliative dermatitis, anaphylactoid reactions, eriorbital edema, conjunctival and scleral injection, photosensiti- ation, arthralgia and allergic myocarditis. *Gastrointestinal reac- ns:* Glossitis, stomatitis, nausea, emesis, abdominal pains, epatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

**Dosage: Not recommended for infants less than two months of age.**

*Urinary Tract Infections:* Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

*Children two months of age or older:*

| Weight | | Dose—every 12 hours | |
|---|---|---|---|
| lbs | kgs | Teaspoonfuls | Tablets |
| 20 | 9 | 1 teasp. (5 ml) | ½ tablet |
| 40 | 18 | 2 teasp. (10 ml) | 1 tablet |
| 60 | 27 | 3 teasp. (15 ml) | 1½ tablets |
| 80 | 36 | 4 teasp. (20 ml) | 2 tablets or 1 DS tablet |

For patients with renal impairment:

| Creatinine Clearance (ml/min) | Recommended Dosage Regimen |
|---|---|
| Above 30 | Usual standard regimen |
| 15-30 | ½ the usual regimen |
| Below 15 | Use not recommended |

*Pneumocystis carinii pneumonitis:* Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

**Supplied:** *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

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Nutley, New Jersey 07110

**Please see back cover.**

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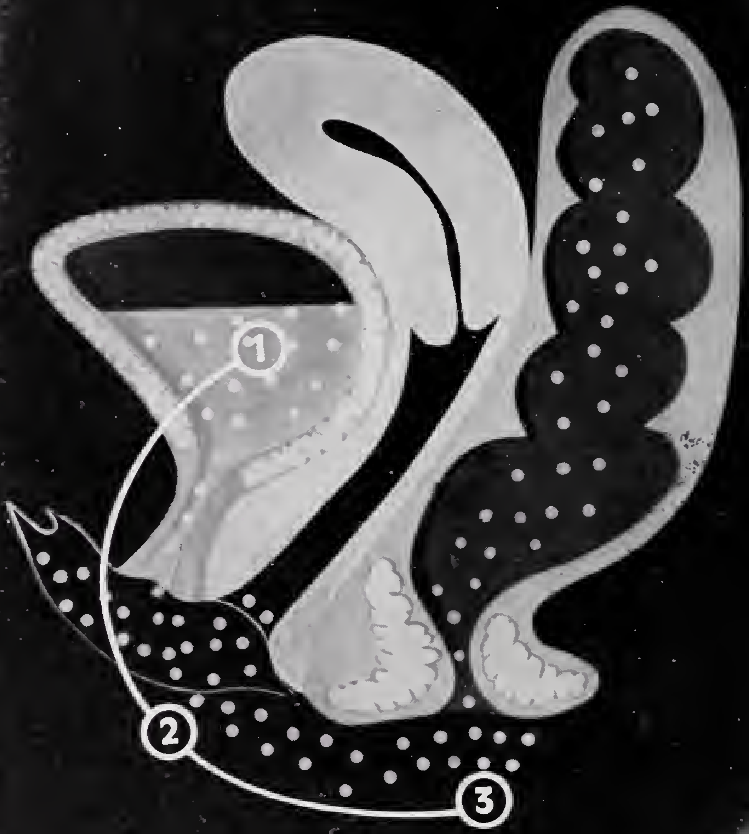
# Her next attack of cystitis may require

# the Bactrim™ 3-system counteratta



**ROCHE**

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enter bacteriaceae* in the bowel without the emergence of res tant organisms. Thus, Bactrim reduces the risk of intro colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

## Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal trac

**Please see reverse side for summary of product information.**

# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

UGUST 15, 1978
VOLUME 75, NUMBER 8-X

# 1978-1979 MEMBERSHIP ROSTER

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**121st MSMA Annual Session**
**April 19-22, 1979, St. Louis**

# Missouri Medicine

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# How to Use This Roster

This Roster issue includes two lists of members of the Missouri State Medical Association as of June 1, 1978.

The **ALPHABETICAL ROSTER** on **PAGE** 436 includes each member's component society name and **number.** A list of COMPONENT SOCIETY NUMBERS appears below.

In the **COMPONENT SOCIETY ROSTER** on **PAGE 469**, the primary specialty appears after the member's name and address. County societies are listed in alphabetical order. See page 468 for explanation of SPECIALTY CODES.

The **Roster for the Missouri State Medical Association AUXILIARY**, beginning on page 521, lists the officers, directors, committee chairmen, MSMA Advisory Council, presidents of county auxiliaries, districts, state past-presidents and members of each county auxiliary.

**For other departments, please refer to the table of contents on the cover page.**

If any errors are found, please report them to the Membership Department, MSMA, 113 Madison, Box 1028, Jefferson City 65102. The cooperation of members is urgently requested.

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# Guide to Component Medical Societies

Following is a list of Missouri communities in which MSMA member-physicians are in active practice or reside. Name of the community is followed by the county in which it is located and the medical society to which physicians of that community normally would belong.

| *Town* | *County* | *Medical Society* |
|---|---|---|
| | A | |
| Advance | Stoddard | SEMO |
| Affton | St. Louis * | |
| Albany | Gentry | Northwest Missouri |
| Altenburg | Perry | Perry-Ste. Genevieve |
| Appleton City | St. Clair | West Central |
| Arnold | Jefferson | Jefferson |
| Ashland | Boone | Boone |
| Aurora | Lawrence | Ozarks |
| Ava | Douglas | South Central |
| | B | |
| Ballwin | St. Louis * | |
| Belton | Cass | West Central |
| Berkeley | St. Louis * | |
| Bethany | Harrison | Grand River |
| Bloomfield | Stoddard | SEMO |
| Blue Springs | Jackson | Jackson |
| Boliver | Polk | Dallas-Hickory-Polk-Dade |
| Bonne Terre | St. Francois | Mineral Area |
| Boonville | Cooper | Cooper |
| Bourbon | Crawford | Mid-Missouri |
| Bowling Green | Pike | Pike |
| Branson | Taney | Ozarks |
| Braymer | Caldwell | Grand River |
| Brentwood | St. Louis * | |
| Bridgeton | St. Louis * | |
| Brookfield | Linn | Grand River |
| Browning | Linn | Grand River |
| Brunswick | Chariton | Chariton-Macon-Monroe-Randolph |
| Buckner | Jackson | Jackson |
| Buffalo | Dallas | Dallas-Hickory-Polk-Dade |
| Butler | Bates | West Central |
| | C | |
| Cabool | Texas | South Central |
| Cainesville | Harrison | Grand River |
| California | Moniteau | Moniteau |
| Camdenton | Camden | Camden |
| Cameron | Clinton | Clinton |
| Cape Girardeau | Cape Girardeau | Cape Girardeau |
| Cardwell | Dunklin | Dunklin |
| Carrollton | Carroll | Grand River |
| Carthage | Jasper | Jasper |
| Caruthersville | Pemiscot | Pemiscot |
| Cassville | Barry | Ozarks |
| Centralia | Boone | Boone |
| Charleston | Mississippi | SEMO |
| Chesterfield | St. Louis * | |
| Chillicothe | Livingston | Grand River |
| Clarksville | Pike | Pike |
| Clayton | St. Louis * | |
| Clinton | Henry | Henry |
| Columbia | Boone | Boone |
| Concordia | Lafayette | Lafayette-Ray |
| Crane | Stone | Ozarks |
| Creve Coeur | St. Louis * | |
| Crystal City | Jefferson | Jefferson |
| Cuba | Crawford | Mid-Missouri |
| | D | |
| Desloge | St. Francois | Mineral Area |
| DeSoto | Jefferson | Jefferson |
| Dexter | Stoddard | SEMO |
| Doniphan | Ripley | Butler-Wayne-Ripley |

| *Town* | *County* | *Medical Society* |
|---|---|---|
| | E | |
| East Prairie | Mississippi | SEMO |
| Edina | Knox | North Central |
| Eldon | Miller | Miller |
| El Dorado Springs | Cedar | West Central |
| Elsberry | Lincoln | St. Charles-Lincoln |
| Everton | Jackson | Jackson |
| Excelsior Springs | Clay | Clay |
| | F | |
| Farmington | St. Francois | Mineral Area |
| Fayette | Howard | Howard |
| Fenton | St. Louis * | |
| Ferguson | St. Louis * | |
| Festus | Jefferson | Jefferson |
| Flat River | St. Francois | Mineral Area |
| Florissant | St. Louis * | |
| Forsyth | Taney | Ozarks |
| Fort Leonard Wood | Pulaski | Mid-Missouri |
| Fredericktown | Madison | Mineral Area |
| Frontenac | St. Louis * | |
| Fulton | Callaway | Callaway |
| | G | |
| Gallatin | Daviess | Grand River |
| Gashland | Clay | Clay |
| Gerald | Franklin | Franklin-Gasconade-Warren |
| Gideon | New Madrid | SEMO |
| Gladden | St. Louis * | |
| Glasgow | Howard | Howard |
| Glendale | St. Louis * | |
| Grandview | Jackson | Jackson |
| Grant City | Worth | Northwest Missouri |
| Gravois Mills | Morgan | Morgan |
| Greenfield | Dade | Dallas-Hickory-Polk-Dade |
| | H | |
| Hamilton | Caldwell | Grand River |
| Hannibal | Marion | Marion-Ralls-Shelby |
| Harrison | Cass | West Central |
| Hayti | Pemiscot | Pemiscot |
| Herculaneum | Jefferson | Jefferson |
| Hermann | Gasconade | Franklin-Gasconade-Warren |
| Hickman Mills | Jackson | Jackson |
| Higginsville | Lafayette | Lafayette-Ray |
| Hillsboro | Jefferson | Jefferson |
| Hornersville | Dunklin | Dunklin |
| Houston | Texas | South Central |
| Humansville | Polk | Dallas-Hickory-Polk-Dade |
| Huntsville | Randolph | Chariton-Macon-Monroe-Randolph |
| | I | |
| Illmo | Cape Girardeau | Cape Girardeau |
| Independence | Jackson | Jackson |
| Ironton | Iron | Mineral Area |
| | J | |
| Jackson | Cape Girardeau | Cape Girardeau |
| Jefferson Barracks | St. Louis * | |
| Jefferson City | Cole | Cole |
| Jennings | St. Louis * | |
| Joplin | Jasper | Jasper |
| | K | |
| Kahoka | Clark | Lewis-Clark-Scotland |
| Kansas City | Jackson | Jackson |
| Kennett | Dunklin | Dunklin |

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* Member may belong to St. Louis County Medical Society or St. Louis Medical Society.

| *Town* | *County* | *Medical Society* |
|---|---|---|
| King City | Gentry | Northwest Missouri |
| Kirksville | Adair | North Central |
| Kirkwood | St. Louis * | |
| Knob Noster | Johnson | Johnson |
| Knox City | Knox | North Central |
| Koch | St. Louis * | |
| **L** | | |
| Ladue | St. Louis * | |
| Lamar | Barton | Barton |
| Lawson | Ray | Lafayette-Ray |
| Leawood (Kan.) | | Jackson |
| Leadwood | St. Francois | Mineral Area |
| Lebanon | Laclede | Mid-Missouri |
| Lee's Summit | Jackson | Jackson |
| Lemay | St. Louis* | |
| Lexington | Lafayette | Lafayette-Ray |
| Liberty | Clay | Clay |
| Linn | Osage | Cole |
| Lockwood | Dade | Dallas-Hickory-Polk-Dade |
| Louisiana | Pike | Pike |
| **M** | | |
| Macon | Macon | Chariton-Macon-Monroe-Randolph |
| Malden | Dunklin | Dunklin |
| Maplewood | St. Louis* | |
| Marceline | Linn | Grand River |
| Marshall | Saline | Saline |
| Marshfield | Webster | Webster |
| Martin City | Jackson | Jackson |
| Maryville | Nodaway | Northwest Missouri |
| Memphis | Scotland | Lewis-Clark-Scotland |
| Mexico | Audrain | Audrain |
| Milan | Sullivan | North Central |
| Moberly | Randolph | Chariton-Macon-Monroe-Randolph |
| Monett | Barry | Ozarks |
| Montgomery City | Montgomery | Montgomery |
| Morehouse | New Madrid | SEMO |
| Mound City | Holt | Northwest Missouri |
| Mountain Grove | Wright | South Central |
| Mountain View | Howell | South Central |
| Mount Vernon | Lawrence | Ozarks |
| **N** | | |
| Neosho | Newton | Ozarks |
| Nevada | Vernon | West Central |
| New Florence | Montgomery | Montgomery |
| New Haven | Franklin | Franklin-Gasconade-Warren |
| New London | Ralls | Marion-Ralls-Shelby |
| New Madrid | New Madrid | SEMO |
| Normandy | St. Louis* | |
| North Kansas City | Clay | Clay |
| **O** | | |
| Oak Grove | Jackson | Jackson |
| Odessa | Lafayette | Lafayette-Ray |
| O'Fallon | St. Charles | St. Charles-Lincoln |
| Olivette | St. Louis* | |
| Osceola | St. Clair | West Central |
| Overland | St. Louis* | |
| Owensville | Gasconade | Franklin-Gasconade-Warren |
| Ozark | Christian | Ozarks |
| **P** | | |
| Pacific | Franklin | Franklin-Gasconade-Warren |
| Palmyra | Marion | Marion-Ralls-Shelby |
| Paris | Monroe | Chariton-Macon-Monroe-Randolph |
| Parkville | Platte | Platte |
| Parma | New Madrid | SEMO |
| Pattonsburg | Daviess | Grand River |
| Pattonville | St. Louis* | |
| Perryville | Perry | Perry-Ste. Genevieve |
| Piedmont | Wayne | Butler-Wayne-Ripley |
| Pilot Knob | Iron | Mineral Area |
| Pine Lawn | St. Louis* | |
| Platte City | Platte | Platte |
| Plattsburg | Clinton | Clinton |
| Pleasant Hill | Cass | West Central |
| Poplar Bluff | Butler | Butler-Wayne-Ripley |
| Portageville | New Madrid | SEMO |
| Potosi | Washington | Mineral Area |

| *Town* | *County* | *Medical Society* |
|---|---|---|
| Prairie Village (Kan.) | | Jackson |
| Princeton | Mercer | Grand River |
| **R** | | |
| Raytown | Jackson | Jackson |
| Reeds Spring | Stone | Ozarks |
| Republic | Greene | Greene |
| Rich Hill | Bates | West Central |
| Richmond | Ray | Lafayette-Ray |
| Richmond Heights | St. Louis* | |
| Rivermines | St. Francois | Mineral Area |
| Robertson | St. Louis* | |
| Rock Hill | St. Louis* | |
| Rockport | Atchison | Northwest Missouri |
| Rogersville | Webster | Webster |
| Rolla | Phelps | Mid-Missouri |
| **S** | | |
| St. Ann | St. Louis* | |
| St. Charles | St. Charles | St. Charles-Lincoln |
| St. Clair | Franklin | Franklin-Gasconade-Warren |
| Ste. Genevieve | Ste. Genevieve | Perry-Ste. Genevieve |
| St. James | Phelps | Mid-Missouri |
| St. Joseph | Buchanan | Buchanan |
| St. Louis City* | | |
| Salem | Dent | Mid-Missouri |
| Salisbury | Chariton | Chariton-Marion-Monroe-Randolph |
| Sappington | St. Louis* | |
| Sarcoxie | Jasper | Jasper |
| Savannah | Andrew | Andrew |
| Sedalia | Pettis | Pettis |
| Shawnee Mission (Kan.) | | Jackson |
| Shelbina | Shelby | Marion-Ralls-Shelby |
| Shelbyville | Shelby | Marion-Ralls-Shelby |
| Shrewsbury | St. Louis* | |
| Sikeston | Scott | SEMO |
| Slater | Saline | Saline |
| Smithton | Pettis | Pettis |
| Smithville | Clay | Clay |
| Springfield | Greene | Greene |
| Stanberry | Gentry | Northwest Missouri |
| Steele | Pemiscot | Pemiscot |
| Steelville | Crawford | Mid-Missouri |
| Stockton | Cedar | West Central |
| Stafford | Greene | Greene |
| Sullivan | Franklin | Franklin-Gasconade-Warren |
| Sweet Springs | Saline | Saline |
| **T** | | |
| Tarkio | Atchison | Northwest Missouri |
| Thayer | Oregon | South Central |
| Trenton | Grundy | Grand River |
| Troy | Lincoln | St. Charles-Lincoln |
| **U** | | |
| Union | Franklin | Franklin-Gasconade-Warren |
| University City | St. Louis* | |
| **V** | | |
| Valley Park | St. Louis* | |
| Vandalia | Audrain | Audrain |
| Versailles | Morgan | Morgan |
| Vienna | Maries | Cole |
| **W** | | |
| Warrensburg | Johnson | Johnson |
| Warrenton | Warren | Franklin-Gasconade-Warren |
| Warsaw | Benton | Benton |
| Washington | Franklin | Franklin-Gasconade-Warren |
| Waverly | Lafayette | Lafayette-Ray |
| Waynesville | Pulaski | Mid-Missouri |
| Webb City | Jasper | Jasper |
| Webster Groves | St. Louis* | |
| Wellsville | Montgomery | Montgomery |
| Wentzville | St. Charles | St. Charles-Lincoln |
| West Plains | Howell | South Central |
| Willard | Greene | Greene |
| Willow Springs | Howell | South Central |
| Windsor | Henry | Henry |
| Winona | Shannon | Carter-Shannon |
| Winston | Daviess | Grand River |

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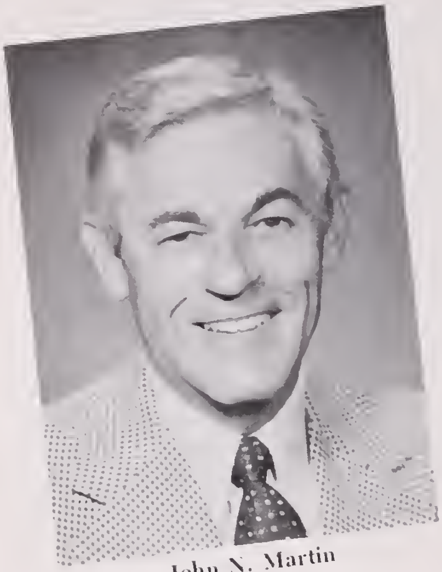
*** Member may belong to St. Louis County Medical Society or St. Louis Medical Society.**


John N. Martin
*President*

# 1978-1979 OFFICERS

Andrew McCanse
*President-Elect*

# Missouri State Medical Association

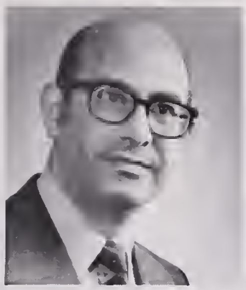
Wilfred E. Wooldridge
*Editor*

## Purpose of Association

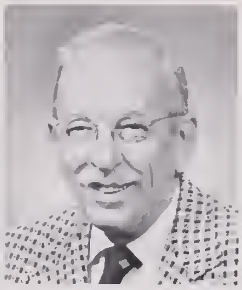
THE PURPOSE of this Association is the promotion of the science and art of medicine, the protection of public health, the betterment of the medical profession, the organization of its membership for negotiation and collective bargaining purposes, and, by uniting with similar organizations in other states and territories of the United States, to form the American Medical Association.

# Officers

Howard J. McAlhany
*Immediate Past-President*


Donald A. Fakhoury
*Vice-President*

Joseph V. Finnegan
*Vice-President*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*Vice-President*

John I. Matthews
*Secretary*

James M. Stokes
*Treasurer*

Edwin K. Burford, Jr.
*Speaker*

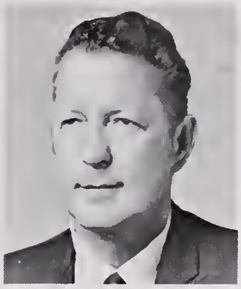
Lily Ann Hanes
*Vice-Speaker*

# AMA Delegates

Melvin C. Kasten
(1978-1979)

James C. Sisk
(1977-1978, 1979-1980)

Rae W. Froelich
(1977-1978, 1979-1980)


Robert A. Slickman
(1978-1979)

# Alternate Delegates

Francis X. Lieb
(1978, 1979-1980)

Hugh E. Stephenson, Jr.
(1978-1979)

Donald Judd
(1978-1979)

Richard P. Bowles
(1977-1978, 1979-1980)

# The Council

Richard C. Hedges
*First District*

John P. Walterscheid
*Second District*

Richard V. Bradley
*Third District*
*(Chairman)*

Louis P. Hetlage
*Fourth District*

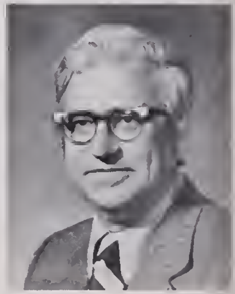
H. Peter Ekern
*Fifth District*

R. John Torontow
*Sixth District*

Irving H. Clark
*Seventh District*

Walter A. German
*Eighth District*

Claude W. Cooper
*Ninth District*


Eugene T.
Hansbrough
*Tenth District*
*(Vice-Chairman)*

## Vice-Councilors

Gary Dyer
*First District*

Patricio Avila
*Second District*

Richard Fallon
*Third District*

Frederick D. Peterson
*Fourth District*

Mary K. McCaffree
*Fifth District*

Roy W. Pearse, Jr.
*Sixth District*

Ronald A. Youmans
*Seventh District*

Marvin Singleton
*Eighth District*

Jack Wiles
*Ninth District*

George H. Ladyman
*Tenth District*

# MSMA Committees and Commissions 1978-1979

## STANDING COMMITTEES

**Executive Committee** — John N. Martin, St. Joseph, Chairman; Andrew cCanse, Kansas City; John I. Matthews, Jefferson City; James M. Stokes, Louis; Richard V. Bradley, St. Louis; Eugene T. Hansbrough, Poplar luff (1979).

**Constitution and Bylaws** — R. Stacy Long, Kansas City, Chairman (1979); eorge Bohigian, St. Louis (1979); Miles C. Whitener, St. Louis (1980); illiam D. Soper (1981); Roy Gillispie, Branson (1981).

**Impaired Physician** — Donald E. McIntosh, Kansas City, Chairman 981); Arnold S. Block, St. Louis (1979); Henry V. Guhleman, Jefferson ity (1980); David L. Ohlms, St. Louis (1980); James E. Young, Kansas City 981).

**Voluntary Health Agencies** — William C. Allen, Columbia, Chairman 980); Joseph L. Fisher, St. Joseph (1979); Paul S. Quinn, Springfield 979); Guy N. Magness, University City (1981).

**Planning** — Paul H. Rother, St. Charles, Chairman (1983); James C. Cope, Rocheport (1979); Melvin C. Kasten. Cape Girardeau (1979); Harry D. Haas, Kansas City (1980); Francis X. Lieb, St. Louis (1980); James A. Hasek, Mountain Grove (1981); E. Rule Olson, Springfield (1981); J. Will Fleming, Moberly (1982); William W. Haynie, Butler (1982); Joseph R. Prokop, St. Joseph (1983).

**Publication** — Wilfred E. Wooldridge, Springfield, Chairman; Ernest Lorenc, Springfield; William C. Mixson, Kansas City, Charles S. Sherwin, St. Louis; Byron M. Stuart, Boonville (1979).

**Legislative Affairs** — John I. Matthews, Jefferson City, Chairman; John N. Martin, St. Joseph; Andrew McCanse, Kansas City; Richard V. Bradley, St. Louis; Eugeene T. Hansbrough, Poplar Bluff; Hubert A. Ritter, St. Louis; Robert E. Bregant, Jefferson City (1979).

## STANDING COMMISSIONS

**Continuing Education and Health Manpower** — George H. Ladyman, oplar Bluff, Chairman (1981); William D. Bradshaw, Columbia (1979); lanuel R. Comas, Manchester (1979); John C. Soucy, St. Charles (1979); eorge X. Trimble, Kansas City (1979); Charles A. Worley, Sweet Springs 1979); W. Wayne Boydston, Odessa (1980); Ronald T. Hill, Dexter (1980); V. Thomas Morgan, Jr., West Plains (1980); Wilbur A. Mullarky, St. Louis 1980); Marvin A. Singleton, Joplin (1980); Gerald M. Callaghan, St. Louis 1981); George D. Comfort, Mexico (1981); Charles N. Mullican, St. Joseph 1981); Larry Ozenberger, Plattsburg (1981).

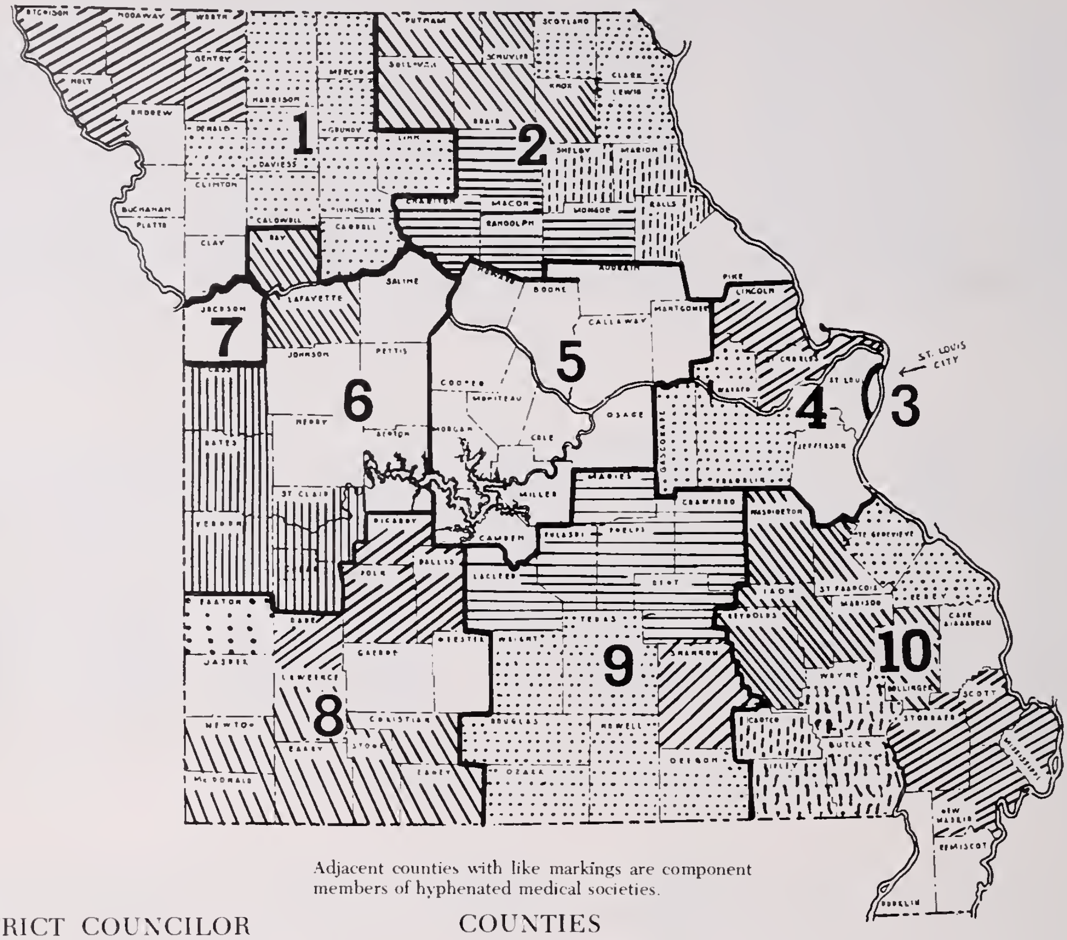
**Medical Economics, Third Party Medicine and Governmental Relations** — Max A. Heeb, Sikeston, Chairman (1979); James L. Carpenter, St. Louis 1979); Rae W. Froelich, Lebanon (1979); Mary K. McCaffree, Jefferson ity (1979); Herbert C. Wiegand, St. Louis (1979); Charles H. Cozean, Jr., ape Girardeau (1980); John A. Griffith, Jr., Kansas City (1980); L. M. lagruder, Nevada (1980); Arturo C. Montes, St. Louis (1980); F. Anthony homas, Kansas City (1980); R. Phillip Acuff, St. Joseph (1981); A. E. raverman, Kansas City (1981); John R. Esther, Joplin (1981); James O. ottes, St. Louis (1981); Stanley S. Peterson, Springfield (1981).

**Medical-Legal Affairs** — Charles J. Ash, Springfield, Chairman (1979); ernard Draper, Rolla (1979); Earl P. Holt, Jr., St. Louis (1979); William J. ledlicott, Kansas City (1979); Robert L. Willcoxon, Joplin (1979); Irving H. lark, Kansas City (1980); Joseph S. Cope, Lexington (1980); Vicente D. Deles, Crystal City (1980); Jerome I. Simon, St. Louis (1980); George P. Wilson, Columbia (1980); Richard O. Craig, St. Joseph (1981); George L. Hawkins, Jr., St. Louis (1981); William R. McPhee, Kansas City (1981); Fred H. Thornton, Sikeston (1981).

**Public Affairs** — Byron E. Watts, Jefferson City, Chairman (1979); Vernon H. Balster, St. Louis (1979); Armand E. Brodeur, St. Louis (1979); Daniel M. Fraser, St. Louis (1979); B. A. Moranville, Columbia (1979); Jill M. Clayton, St. Louis (1980); Donald R. Germann, Kansas City (1980); George Q. Dunmire, Kennett (1980); John M. Laird, Florissant (1980); Richard H. Loeb, Springfield (1980); A. J. Campbell, Sedalia (1981); Jean A. Chapman, Cape Girardeau (1981); Robert F. Tobin, St. Joseph (1981); Sharon Waggoner, St. Joseph (1981); Ronald A. Youmans, Kansas City (1981).

**Interspecialty Medicine** — *Missouri Society of Pathologists*, Thomas J. Cooper, St. Louis, Chairman; *Missouri State Allergy Association*, J. Allen Thiel, St. Louis; *Missouri Society of Anesthesiologists*, J. O. Alyea, Columbia, *Missouri Dermatological Society*, Larry E. Millikan, Columbia; *Missouri ENT Association, Inc.*, William P. Lampros, St. Louis; *Missouri Academy of Family Physicians*, C. W. Chastain, Kansas City; *Missouri Society of Internal Medicine*, Clement B. Grebel, St. Louis; *Missouri Society of Neurosurgeons*, George L. Hawkins, Jr., St. Louis; *Missouri OB-GYN Society*, George J. Fuchs, Columbia; *Missouri Ophthalmological Society*. Larry K. Stauffer, Jefferson City; *Missouri Orthopedic Association*, Robert Kuhlman, St. Louis; *Missouri Chapter, American Society of Pediatrics*, Donald L. Thurston, St. Louis; *Physical Medicine and Rehabilitation*, Franz U. Steinberg, St. Louis; *Missouri Psychiatric Association*, Duane Q. Hagen, St. Louis; *Missouri Radiological Society*. William H. McAlister, St. Louis; *Missouri Chapter, American College of Surgeons*, R. O. Frederick, St. Louis; *Missouri State Surgical Society*, Cyril Costello, St. Louis; *Missouri Thoracic Society*. Daniel J. Hurst, Columbia; *Federation of Missouri Urologists*. Milton B. Ozar. Kansas City (1979).

# Councilor Districts and Counties in Each District


1
2
3
4
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9
10
ST. LOUIS CITY
ATCHISON
NODAWAY
WORTH
PUTNAM
SCOTLAND
GENTRY
MERCER
SCHUYLER
SULLIVAN
CLARK
HOLT
HARRISON
KNOX
LEWIS
ANDREW
DEKALB
GRUNDY
LINN
SHELBY
MARION
DAVIESS
CLINTON
BUCHANAN
PLATTE
CALDWELL
LIVINGSTON
CARROLL
CHARITON
MACON
RANDOLPH
MONROE
RALLS
CLAY
RAY
SALINE
HOWARD
AUDRAIN
PIKE
LINCOLN
LAFAYETTE
BOONE
CALLAWAY
MONTGOMERY
JACKSON
JOHNSON
PETTIS
COOPER
MONITEAU
ST. CHARLES
WARREN
ST. LOUIS
CASS
HENRY
MORGAN
BENTON
COLE
OSAGE
GASCONADE
FRANKLIN
JEFFERSON
BATES
ST. CLAIR
MILLER
MARIES
CRAWFORD
WASHINGTON
VERNON
HICKORY
CAMDEN
PULASKI
PHELPS
STE. GENEVIEVE
POLK
DALLAS
LACLEDE
DENT
ST. FRANCOIS
PERRY
IRON
MADISON
BARTON
CEDAR
DADE
TEXAS
REYNOLDS
CAPE GIRARDEAU
JASPER
GREENE
WEBSTER
WRIGHT
SHANNON
WAYNE
BOLLINGER
SCOTT
LAWRENCE
CHRISTIAN
DOUGLAS
HOWELL
CARTER
BUTLER
STODDARD
NEWTON
BARRY
STONE
TANEY
OZARK
OREGON
RIPLEY
MISSISSIPPI
McDONALD
NEW MADRID
PEMISCOT
DUNKLIN

Adjacent counties with like markings are component members of hyphenated medical societies.

| DISTRICT | COUNCILOR | COUNTIES |
|---|---|---|
| First | **Richard C. Hedges, M.D.**<br>Excelsior Springs | Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Clinton, Daviess, DeKalb, Gentry, Grundy, Harrison, Holt, Linn, Livingston, Mercer, Nodaway, Platte and Worth |
| Second | **John H. Walterscheid, M.D.**<br>Hannibal | Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Monroe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotland, Shelby and Sullivan |
| Third | **Richard V. Bradley, M.D.**<br>(Chairman)<br>St. Louis | St. Louis (City) |
| Fourth | **Louis P. Hetlage, M.D.**<br>Troy | Franklin, Gasconade, Jefferson, Lincoln, St. Charles, St. Louis (County) and Warren |
| Fifth | **H. Peter Ekern, M.D.**<br>Mexico | Audrain, Boone, Callaway, Camden*, Cole, Cooper, Howard, Miller, Moniteau, Montgomery, Morgan and Osage* |
| Sixth | **John Torontow, M.D.**<br>Nevada | Bates, Benton, Cass, Cedar, Henry, Johnson, Lafayette, Pettis, Ray, St. Clair, Saline and Vernon |
| Seventh | **Irving H. Clark, M.D.**<br>Kansas City | Jackson |
| Eighth | **Walter A. German, M.D.**<br>Springfield | Barry, Barton, Christian, Dade, Dallas, Greene, Hickory, Jasper, Lawrence, McDonald, Newton, Polk, Stone, Taney and Webster |
| Ninth | **Claude W. Cooper, M.D.**<br>Thayer | Crawford, Dent, Douglas, Howell, Laclede, Maries, Oregon, Ozark, Phelps, Pulaski, Shannon, Texas and Wright |
| Tenth | **Eugene T. Hansbrough, M.D.**<br>(Vice-Chairman)<br>Poplar Bluff | Bollinger, Butler, Cape Girardeau, Carter, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Reynolds, Ripley, St. Francois, Ste. Genevieve, Scott, Stoddard, Washington and Wayne |

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* Counties with no medical organization.

# Component Societies in Affiliation With the Missouri State Medical Association

| County | District | President | Address | Secretary | Address |
|---|---|---|---|---|---|
| Andrew | 1 | Gilbert B. Kelley | Savannah | Warren C. Baker | Savannah |
| Audrain | 5 | Gerald Hoxworth | Mexico | Mary Mullen | Rush Hill |
| Barton | 8 | Herbert M. Arnold | Lamar | Thomas W. Carroll | Lamar |
| Boone | 5 | Larry Millikan | Columbia | James M. Pickens | Columbia |
| Buchanan | 1 | Edmund W. Kline | St. Joseph | R. Philip Acuff | St. Joseph |
| Butler-Wayne-Ripley-Carter | 10 | Kirby Turner | Poplar Bluff | Soung Kwoun | Poplar Bluff |
| Callaway | 5 | Vernon Jackson | Fulton | Paul Williams | Fulton |
| Cape Girardeau | 10 | Jerry Kinder | Cape Girardeau | C. John Ritter, Jr. | Cape Girardeau |
| Chariton-Macon-Monroe-Randolph | 2 | R. V. Tompson | Moberly | G. R. Hudson | Moberly |
| Clay | 1 | William D. Soper | Liberty | F. Anthony Thomas | Kansas City |
| Clinton | 1 | L. A. Ozenberger | Plattsburg | J. H. Sweiger | Plattsburg |
| Cole | 5 | Larry Stauffer | Jefferson City | John J. Falzone | Jefferson City |
| Cooper | 5 | Daikichi Hata | Boonville | E. T. Humphreys | Boonville |
| Dallas-Hickory-Polk-Dade | 8 | Lee McNeel, Jr. | Greenfield | Monte R. Kahler | Bolivar |
| Dunklin | 10 | John D. Rigdon | Kennett | Quinton Tarver | Kennett |
| Franklin-Gasconade-Warren | 4 | John B. Crane | Washington | | |
| Grand River Medical Society (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb | 1 | Frank R. Daley | Hamilton | John F. Rose | Chillicothe |
| Greene | 8 | Thomas Ashley | Springfield | T. James Sammon | Springfield |
| Henry | 6 | Richard H. King | Clinton | Kenneth F. Scott | Clinton |
| Howard | 5 | William G. Marshall | Glasgow | M. P. Leech | Fayette |
| Jackson | 7 | Ronald A. Youmans | Kansas City | George E. Volk | Kansas City |
| Jasper | 8 | Andrew J. Fritsch | Joplin | Edward Grim | Joplin |
| Jefferson | 4 | Michael Blank | DeSoto | Benjamin I. Albano | Crystal City |
| Johnson | 6 | Keith D. Jones | Warrensburg | Robert L. Cooper | Warrensburg |
| Lafayette-Ray | 6 | Franklin Crozier | Richmond | Catherine Boydston | Odessa |
| Lewis-Clark-Scotland | 2 | | | Landis Y. Davis | Canton |
| Marion-Ralls-Shelby | 2 | Stanley Hall | Hannibal | Estrella Z. Avila | Hannibal |
| Mid-Missouri County Medical Society (Phelps-Crawford-Dent-Pulaski-Maries-Laclede) | 9 | Ted P. Smith | Rolla | H. Neal Grannemann | Rolla |
| Miller | 5 | Carl T. Buhler, Jr. | Eldon | | |
| Mineral Area Medical Society (St. Francois-Iron-Madison-Washington-Reynolds-Bollinger) | 10 | Jack Mullen | Bonne Terre | Walter Gray | Farmington |
| Moniteau | 5 | Kenyon S. Latham | California | L. M. Gallagher | California |
| Montgomery | 5 | | | S. J. Byland | Wellsville |
| Morgan | 5 | J. Loren Washburn | Versailles | C. Robert Hall | Versailles |
| North Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam) | 2 | Francis Tarvydas | Edina | Milton T. English | Kirksville |
| Northwest Missouri Medical Society (Nodaway-Holt-Atchison-Gentry-Worth) | 1 | Elvin D. Imes | Maryville | Patric B. Harr | Maryville |
| Ozarks Medical Society (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald) | 8 | Richard Betz | Neosho | Serigo Cruz | Monett |
| Pemiscot | 10 | Alan S. Gubin | Caruthersville | Clarence McKaskle | Caruthersville |
| Perry-Ste. Genevieve | 10 | Robert C. Hoye | Ste. Genevieve | Gerard H. DeGenova | Ste. Genevieve |
| Pettis | 6 | H. John Erickson | Sedalia | Donald Allcorn | Sedalia |
| Pike | 2 | Joe Martin | Louisiana | Phil Pitney | Louisiana |
| Platte | 1 | | | S. Lloyd Allen | Kansas City |
| St. Charles-Lincoln | 4 | Charles Lisenmeyer | St. Charles | Michael J. Curry | St. Charles |
| St. Louis Medical Society | 3 | J. Otto Lottes | St. Louis | Robert R. MacDonald | St. Louis |
| St. Louis County | 4 | Jay Meyer | St. Louis | Harry C. Eggleston | St. Louis |
| Saline | 6 | M. E. Roehrs | Marshall | K. Thomas Paprick | Marshall |
| SEMO County Medical Society (Stoddard-New Madrid-Mississippi-Scott) | 10 | Robert Frazier | Charleston | Daniel Rosenstein | Sikeston |
| South Central (Howell-Oregon-Texas-Wright-Douglas-Ozark) | 9 | Jack A. Langevin | West Plains | Jack N. Wiles | West Plains |
| Webster | 8 | Robert J. Bareis | Marshfield | Thomas M. MacDonnell | Marshfield |
| West Central Missouri Medical Society (Bates-Cass-Cedar-St. Clair-Vernon) | 6 | W. W. Haynie | Butler | Rolla B. Wray | Nevada |

# Alphabetical Roster of Members

(The alphabetical list of members includes the name and number of each member's component society.)

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| BEAMON,RICHARD,FREDERICK, | CLAY | 050 |
| BEARD,WM,JACOB, | JACKSON | 098 |
| BEARE,J,BYRON, | ST. LOUIS CITY | 190 |
| BEASLEY,LOUIS,K, | ST. LOUIS COUNTY | 194 |

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* Doctor of Osteopathy

| | | |
|---|---|---|
| BEATD,OAVIO,LEWIS, | ST. LDUIS CITY | 190 |
| BEATTY,ARCH,JOE, | JACKSON | 098 |
| BEATTY,EUGENE,CARL, | JACKSDN | 098 |
| BEATTY,NINA,OAWSDN-REIO, | JACKSON | 096 |
| BEATY,WM,R, | ST. LDUIS CITY | I90 |
| BEAUCHAMP,GARY,OUANE, | JACKSDN | 09B |
| BECK,CALVIN,EOSEL, | JACKSDN | 096 |
| BECK,MARCUS,RICHARO, | BDONE | 026 |
| BECK,PAUL,MARTIN, | BUCHANAN | 030 |
| BECKER,BERNARO, | ST. LDUIS CITY | 190 |
| BECKER,EOWARO,JENNINGS, | ST. LOUIS CITY | I90 |
| BECKER,RICHARO,R, | JACKSON | 09B |
| BECKER,ROBT,LDUIS, | ST. LDUIS COUNTY | 194 |
| BECKER,RDLFE,ALLEN, | JACKSDN | 09B |
| BECKER,STANLEY,CLIFFDRO, | ST. LOUIS CITY | I90 |
| BECKETTE,EDMUNO, | ST. LDUIS CITY | I90 |
| BECKMAN,OONALO,ERWIN, | ST. LDUIS CITY | I90 |
| BEEKS,JDHN,WARREN, | JACKSDN | 09B |
| BEHBAHANI,PARVIZ,MDRSHED, | ST. LDUIS CITY | I90 |
| BEHELER,EOWARO,MILTON, | BUCHANAN | 030 |
| BEHRENOS,STEVEN,HENRY, | JACKSDN | 098 |
| BEHRENS,ODNALD,THEOOORE, | ST. LDUIS CITY | 190 |
| BEHRENS,GERALD,LEE, | ST. LDUIS CITY | I90 |
| BEIDLE,RAYMOND,JOS, | ST. LDUIS CITY | I90 |
| BEISNER,DDNALD,HENRY, | GREENE | OB2 |
| BELANCOURT,OUNET,F, | ST. LDUIS CITY | 190 |
| BELDEN,EOGAR,A, | COLE | 056 |
| BELEN,MARIETTA, | JEFFERSDN | 106 |
| BELEW,JDE,EOWARO, | ST. LOUIS CITY | 190 |
| BELL,HUBERT,HARVEY, | JACKSDN | D96 |
| BELL,MARTIN,JAY, | ST. LOUIS CITY | 190 |
| BELL,RDBT,MALSEED, | MARIDN-RALLS-SHELBY | 13D |
| BELL,WM,F, | JACKSDN | D96 |
| BENAGE,CLARENCE,MATTHEW, | ST. LOUIS CDUNTY | 194 |
| BENITDNE,JERRY,D, | PEMISCOT | 17D |
| BENNE,MICAHEL,GEDRGE, | BUCHANAN | D3D |
| BENNETT,JAMES,O, | JACKSDN | 09B |
| BENNETT,JDHN, | ST. LDUIS CITY | 190 |
| BENNETT,KENNETH,JDHN, | ST. LDUIS CITY | I90 |
| BENNDCH,SHANE,LINTDN, | GREENE | DB2 |
| BENDIST,WALTER,FISCHEL, | ST. LDUIS CDUNTY | 194 |
| BENDIT,HECTDR,W, | JACKSDN | 09B |
| BENSDN,GEDRGE,N, | JACKSDN | D9B |
| BENSDN,JDHN,F, | ST. LDUIS CITY | 19D |
| BENSDN,LARRY,EOWARD, | CLAY | 050 |
| BENSON,RDNALD,GDRODN, | GREENE | DB2 |
| BENSDN,SCDTT,CDNRAD, | BUCHANAN | 030 |
| BENSDN,WILLIAM,F, | JACKSDN | 09B |
| BENTINGANAN,VICTDR,D, | MINERAL AREA | I3B |
| BENTLAGE,CHAS,HENRY, | JASPER | 102 |
| BENTLEY,JDHN,D, | GREENE | DB2 |
| BERARD,LDUIS,N, | ST. LDUIS CITY | 19D |
| BERENSDN,SHELDDN,ELLIS, | JACKSDN | 098 |
| BERG,EOWARO,FRANK, | ST. LOUIS CITY | 190 |
| BERG,LEDNARO, | ST. LDUIS CITY | 190 |
| BERG,RALPH, | ST. LDUIS CITY | I90 |
| BERGER,EDWARD,J, | ST. LDUIS CDUNTY | I94 |
| BERGMAN,HUGO,F, | ST. LOUIS CITY | 190 |
| BERGMANN,DWAYNE,LEROY, | ST. LDUIS CITY | I90 |
| BERGMANN,JDHN,FREOERICK, | ST. LOUIS CDUNTY | I94 |
| BERGMANN,MARTIN, | ST. LDUIS COUNTY | 194 |
| BERGMANN,VICTOR,H, | JACKSON | 098 |
| BERGNER,GRACE,E, | ST. LDUIS CITY | I90 |
| BERLAND,HARRY,ISAOORE, | ST. LOUIS CITY | 190 |
| BERLIN,ROGER, | JACKSDN | 096 |
| BERMAN,WM, | ST. LOUIS CITY | I90 |
| BERNABE,FLDRINIO,H, | ST. LDUIS COUNTY | I94 |
| BERNABE,OFELIA,M, | ST. LDUIS CDUNTY | I94 |
| BERNARD,JAMES,WALTER, | PEMISCOT | I70 |
| BERNOSEN,GERARO,H, | ST. LDUIS CDUNTY | 194 |
| BERNEY,FRANCIS,J, | BUCHANAN | 030 |
| BERNI,ANTHONY,ARTHUR, | ST. LOUIS CITY | I9D |
| BERNREITER,MICHAEL, | JACKSON | 098 |
| BERNSTEIN,AARDN,M, | ST. LOUIS CDUNTY | I94 |
| BERRY,JDHN,WALTNER, | ST. LOUIS CITY | 190 |
| BERRY,MAXWELL,G, | JACKSON | 098 |
| BERRY,PAUL,THOS, | GREENE | 082 |
| BERWALO,OAVIO,MDRTDN, | ST. LDUIS CDUNTY | 194 |
| BERWALO,IRVIN,I, | ST. LOUIS CDUNTY | 194 |
| 8EST,ROBT,BRUCE, | LAFAYETTE-RAY | 1IB |
| BETTONVILLE,PAUL,J, | ST. LDUIS CITY | I90 |
| BETZ,EOWARO, | ST. LOUIS CITY | I90 |
| BETZ,RICHARD,JDSEPH, | DZARKS | 166 |
| BETZ,RDBERT,FRANCIS, | DZARKS | I66 |
| BHATI,DED,KALYAN, | MID MISSDURI | IB2 |
| BHATTACHARYA,ARJUN, | ST. LDUIS CDUNTY | 194 |
| BHEND,OAVID,PAUL, | JASPER | 102 |
| BHDTHINARD,BHISIT, | ST. LDUIS CDUNTY | 194 |
| BICKEL,VERN,T, | BARTDN | DIB |
| BICKLEY,JAMES,EOWARD, | JACKSDN | D9B |
| BIDDY,RALPH,LED, | ST. LDUIS CITY | 190 |
| BIDWELL,JD,JEANNE, | JACKSDN | 09B |
| BIDWELL,RDBT,EDWARO G, | JACKSDN | D98 |
| BIELLD,DANIEL,R, | ST. LDUIS CITY | 19D |
| BIERY,RICHARD,MARTIN, | JACKSDN | 09B |
| BIGGS,ALFRED,DE BARD, | JACKSDN | D98 |
| BIGGS,FRED,JDS, | BUTLER-WAYNE-RIPLEY-CARTER | D34 |
| BIGGS,HARRY,L, | JACKSDN | D9B |
| BIGGS,JDHN, | ST. LDUIS CITY | I90 |
| BIKALES,VICTDR,WM, | JACKSDN | 096 |
| BILCHIK,RDNALD,CHAS, | ST. LDUIS CDUNTY | I94 |
| BILLS,MARVIN,L, | JACKSDN | D98 |
| BILLY,LAWRENCE,JDHN, | ST. LDUIS CITY | 190 |
| BILSKY,NATHAN, | ST. LDUIS CITY | I9D |
| BINOA,RDBERT,E, | JACKSDN | 098 |
| BINDBEUTEL,DDNALD,A, | ST. LDUIS CITY | 190 |
| BINDER,MDRTDN,A, | ST. LDUIS CITY | 19D |
| BINNINGTDN,H,BRADLEY, | ST. LDUIS CITY | I90 |
| BIRCHER,JOHN,L, | ST. LOUIS CITY | 190 |
| BIRD,H,WALDD, | ST. LOUIS CITY | I90 |
| BIRO,WM,J F, | JASPER | 102 |
| BIREN8AUM,AARDN, | ST. LOUIS COUNTY | 194 |
| BIRGE,CLIFFDRD,ALLEN, | ST. LDUIS CITY | 190 |
| BIRKBY,WM,FRANCIS, | BDONE | 026 |
| BIRSNER,FRANK,H, | JASPER | 102 |
| BISHOP,MARIDN,OALE, | ST. LDUIS CDUNTY | 194 |
| BISHOP,MARY,C MC FAYOEN, | ST. LOUIS CITY | 190 |
| BISNO,OANL, | ST. LOUIS CITY | 190 |
| BIZEK,JDS,LDUIS, | OZARKS | I66 |
| BLACK,OON,ALVIN, | JACKSON | 096 |
| BLACK,EUGENE,C, | JACKSDN | 09B |
| BLACK,JDSEPH,T, | ST. LDUIS CITY | 190 |
| BLACK,SAML,PAUL WEST, | BDDNE | 026 |
| BLACK,THOMAS,C, | JACKSDN | 098 |
| BLACKMAN,PATRICIA,A B, | ST. LDUIS COUNTY | 194 |
| BLACKWELL,CHARLES,RUFUS, | JACKSDN | 098 |
| BLACKWELL,CHAS,WILFRED, | BDDNE | 026 |
| BLADES,RDSS,OEES, | GREENE | OB2 |
| BLAOOW,TERRENCE,CRAIG, | JASPER | 102 |
| BLAIR,JOHN,ODUGLAS, | ST. LOUIS CITY | I90 |
| BLAIR,OLGA,MENOEZ, | ST. LDUIS CITY | I90 |
| BLAIR,VILRAY,PAPIN, | ST. LDUIS CITY | I90 |
| BLALDCK,RDBT,W, | SALINE | 198 |
| BLANO,HARDLO,EOWARD, | BDDNE | 026 |
| BLANK,MICHAEL,KENNETH, | JEFFERSON | I06 |
| BLANKENSHIP,DALE,M, | CAPE GIRAROEAU | 042 |
| BLANKENSHIP,GED,WM, | DZARKS | I66 |
| BLANTDN,JDS,CULLEN, | SEMD | 202 |
| BLATH,RICHARO,ALAN, | ST. LDUIS CITY | 190 |
| BLIM,RICHARO,DDN, | JACKSDN | D9B |
| BLDCK,ARNDLO,SYLVAN, | ST. LDUIS CITY | 190 |
| BLDCK,JERDME,EDWARD, | PETTIS | 178 |
| BLDUNT,LEE, | ST. LDUIS CITY | I90 |
| *BLUM DD,MICHAEL,A, | JACKSDN | 098 |
| BLYTHE,JAMES,GRANVILLE, | ST. LDUIS CITY | 190 |
| BDCCARDD,HUMBERTD, | ST. LDUIS CITY | 190 |
| BDCKELMAN,CLIFFDRD,H, | ST. LOUIS CITY | I90 |
| BDDENHAUSEN,GARY,E, | JACKSDN | 09B |
| BDEDEKER,RDY,V, | ST. LDUIS CITY | 190 |
| BDGER,JAMES,W, | PETTIS | 178 |
| BDHAN,JAMES,A, | BDDNE | D26 |
| BDHIGIAN,GED,MICHAEL, | ST. LDUIS CITY | 190 |
| BDHLING,CDREY,A, | ST. LDUIS CITY | 190 |
| BDHNSACK,RALPH,WDDDS, | GRAND RIVER | 07B |
| BDLDIZAR,ALBERT,GED, | ST. LDUIS CITY | 190 |
| BDLDT,THDS,HENRY, | ST. LDUIS CITY | 190 |
| BDLES,C,READ, | ST. LDUIS CDUNTY | 194 |
| BDLINSKE,RDBT,E, | ST. LDUIS CDUNTY | 194 |
| BDLLDZDS,GEDRGE,D, | ST. LDUIS CITY | I90 |
| BDLTDN,RDBT,LE RDY, | ST. LDUIS CITY | 190 |
| BDNACDRSI,JDHN, | ST. LDUIS CITY | I90 |

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| | | |
|---|---|---|
| BOND,LESLIE,FEE, | ST. LOUIS CITY | 190 |
| BONDURANT,BRYCE,H, | ST. LOUIS CITY | 190 |
| BONEBRAKE,MAC,DONALD, | GREENE | 082 |
| BONFANTI,ALBERT,LEWIS, | ST. LOUIS CITY | 190 |
| BONIFACIO,ANDRES,S, | JEFFERSON | 106 |
| BONIUK,ISAAC, | ST. LOUIS CITY | 190 |
| BONNEY,SAML,COWN, | FRANKLIN-GASCONADE-WARREN | 074 |
| BONSANTI,ROBT,LOUIS, | ST. LOUIS COUNTY | 194 |
| BOONE,DANL,CARRINGTON, | CLAY | 050 |
| BOONE,MARTIN,HAYDEN, | GREENE | 082 |
| BOONKHAM,CHOTCHAI, | ST. LOUIS CITY | 190 |
| BOONSHAFT,BENJE, | ST. LOUIS COUNTY | 194 |
| BOONYASAI,BOONFU, | MINERAL AREA | 138 |
| OOTH,WM,VERDELL, | SEMO | 202 |
| BOPP,JON,RONALD, | JASPER | 102 |
| BORDY,MARVIN,DEAN, | JACKSON | 096 |
| BORENSTINE,JOS, | JACKSON | 098 |
| BORJA,EGBERT,RULLODA, | GREENE | 062 |
| BOROWSKY,BENJ,ARTHUR, | ST. LOUIS CITY | 190 |
| BORROMEO,CARLOS,JASON, | MARION-RALLS-SHELBY | 130 |
| BORSUK,GREGORY,MICHAEL, | JACKSON | 096 |
| BORTNICK,ARTHUR,R, | ST. LOUIS COUNTY | 194 |
| BORTNICK,EUGENE, | JACKSON | 096 |
| BOTWIN,ARNOLD,ELLIS, | JACKSON | 096 |
| BOUHASIN,JOHN,D, | ST. LOUIS CITY | 190 |
| BOURGEOIS,CURTIS,HORATIO, | BOONE | 026 |
| BOURJOLLY,WILSON,P, | ST. LOUIS CITY | 190 |
| BOURKE,THOS,EDWARD, | ST. LOUIS CITY | 190 |
| BOVERI,JOS,CHAS, | ST. LOUIS CITY | 190 |
| BOWDERN,EDWARD,H, | ST. LOUIS CITY | 190 |
| BOWDISH,PALMER,R, | SALINE | 198 |
| BOWE,EDWIN,EARL, | COLE | 056 |
| BOWEN,STEPHEN,F, | ST. LOUIS CITY | 190 |
| BOWER,ROGER,HARRISON, | BOONE | 026 |
| BOWERMAN,HAROLD,H, | ST. LOUIS CITY | 190 |
| BOWERS,JAMES,EDWARD, | ST. LOUIS CITY | 190 |
| BOWERS,JOHN,W, | GREENE | 082 |
| BOWERSOX,WARREN,A, | ST. LOUIS CITY | 190 |
| BOWLES,G,ROBT, | ST. LOUIS COUNTY | 194 |
| BOWLES,RICHARD,P, | CLAY | 050 |
| BOWLES,WM,TSCHARNER, | ST. LOUIS CITY | 190 |
| BOWMAN,MELVIN,C, | OZARKS | 166 |
| BOWMAN,W,KIRK, | CAPE GIRARDEAU | 042 |
| BOWNIK,THEODORE,BRYAN, | CLAY | 050 |
| BOWSER,JOHN,F, | JACKSON | 098 |
| BOWSER,ROBERT,L, | CLAY | 050 |
| BOYARSKY,SAUL, | ST. LOUIS CITY | 190 |
| BOYCE,JOHN,MILTON, | AUDRAIN | 014 |
| BOYD,GEO,K, | JACKSON | 098 |
| BOYDSTON,CATHERINE,O O, | LAFAYETTE-RAY | 116 |
| BOYDSTON,WYATT,WAYNE, | LAFAYETTE-RAY | 118 |
| BOYER,PETER,ALLEN, | COLE | 056 |
| BOYER,PHILIP,A, | JACKSON | 096 |
| BOYLAN,PETER,C, | JACKSON | 096 |
| BOZZO,RAYMOND,JOHN, | FRANKLIN-GASCONADE-WARREN | 074 |
| BRABY,HOWARD,HUGH, | JACKSON | 098 |
| BRADFORD,JOHN,FRANKLIN, | JACKSON | 098 |
| BRADLEY,RICHARD,V, | ST. LOUIS CITY | 190 |
| BRADLEY,WM,WYMORE, | AUDRAIN | 014 |
| BRADSHAW,WM,DAVID, | BOONE | 026 |
| BRADY,HARRY,ROBT, | ST. LOUIS CITY | 190 |
| BRADY,HUGH,S, | LAFAYETTE-RAY | 116 |
| BRAHMACUPTA,NANTHANA, | CLAY | 050 |
| BRAMS,JACK,B, | JACKSON | 098 |
| BRANCATO,DONALD,HAYWOOD, | ST. LOUIS CITY | 190 |
| BRAND,EARL,L, | ST. LOUIS COUNTY | 194 |
| BRAND,STANLEY,N, | JACKSON | 098 |
| BRANDON,FREDERICK,M, | JASPER | 102 |
| BRANGLE,ROBT,WM, | ST. LOUIS CITY | 190 |
| BRAUFMAN,HARVEY,S, | ST. LOUIS COUNTY | 194 |
| BRAVERMAN,ABE,E, | JACKSON | 098 |
| BRAZOS,JOHN,C, | PETTIS | 178 |
| BREGANT,ROBT,EUGENE, | COLE | 058 |
| BREMER,RITA,FRIEDA, | ST. LOUIS CITY | 190 |
| BREMSER,HARRY,L, | ST. LOUIS CITY | 190 |
| BRENNAN,DANL,JOS, | ST. LOUIS CITY | 190 |
| BRENNAN,GEO,A, | ST. LOUIS CITY | 190 |
| BRENNAN,RAYMOND,J, | GRAND RIVER | 078 |
| BRENNAN,RICAHRD,JAMES, | BUCHANAN | 030 |
| BRENNAN,ROBT,ALEXIS, | ST. LOUIS CITY | 190 |
| BRENNAN,ROBT,V, | ST. LOUIS CITY | 190 |
| BRENNER,PAUL,ADOLPH A, | FRANKLIN-GASCONADE-WARREN | 074 |
| BRENT,LANNY,ROSS, | GREENE | 082 |
| BRERETON,ROBT,LOFTUS, | ST. LOUIS CITY | 190 |
| BRIAN,WM,JOHN, | GREENE | 082 |
| BRICK,JEFFREY,MICHAEL, | JACKSON | 098 |
| BRICKER,EUGENE,M, | ST. LOUIS CITY | 190 |
| BRIELMAIER,CHARLES, | ST. LOUIS CITY | 190 |
| BRIGHAM,DAVID,WM, | ST. LOUIS CITY | 190 |
| BRIMMO,A,I, | ST. LOUIS CITY | 190 |
| BRION,PACELLI,ESCONOO, | ST. LOUIS COUNTY | 194 |
| BRISCOE,JOHN,RANDOLPH, | ST. LOUIS COUNTY | 194 |
| BRISTOW,ROBT,B, | BUCHANAN | 030 |
| BRIZIO-MOLTENI,LOREDANA, | CLAY | 050 |
| BROADDUS,LOREN,EHRMAN, | GREENE | 082 |
| BRODEUR,ARMAND,EDWARD, | ST. LOUIS CITY | 190 |
| BROOKEY,MARK,JEFFREY, | JACKSON | 096 |
| BRODY,ARNOLD,GENE, | ST. LOUIS COUNTY | 194 |
| BRONSON,SHAEL,S, | ST. LOUIS CITY | 190 |
| BROOK,CHARLES,J, | JACKSON | 096 |
| BROOKES,ROBT,O, | ST. LOUIS CITY | 190 |
| BROOKRESON,ALTON,DAVIS, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
| BROOKS,CHARLES,STEPHEN, | BOONE | 026 |
| BROOKS,JOHN,E, | GREENE | 082 |
| BROOKS,WM,HENRY, | JACKSON | 096 |
| BROUN,GORONWY,O, | ST. LOUIS CITY | 190 |
| BROWER,CLYDE,L, | JACKSON | 098 |
| BROWN,ADRIAN,J, | JACKSON | 098 |
| BROWN,DAVID,W, | GREENE | 082 |
| BROWN,ELWYN,S, | JACKSON | 098 |
| BROWN,FREDERICK,BEDFORD, | OZARKS | 166 |
| BROWN,IRWIN,S, | JACKSON | 098 |
| BROWN,JAMES,M, | ST. LOUIS CITY | 190 |
| BROWN,JAMES,T, | GREENE | 082 |
| BROWN,JOHN,JEFFERSON, | CALLAWAY | 038 |
| BROWN,KATHERINE,SHIRLEY, | CALLAWAY | 038 |
| BROWN,MENZIE,H, | JACKSON | 096 |
| BROWN,MERLIN,DEAN, | BUCHANAN | 030 |
| BROWN,ROBT,S, | JACKSON | 098 |
| BROWN,SEYMOUR, | ST. LOUIS CITY | 190 |
| BROWN,VIOLETA,ORTEGA, | JACKSON | 098 |
| BROWNE,JON,E, | JACKSON | 096 |
| BROWNING,RONALD,A, | JASPER | 102 |
| BROWNSBERGER,ROBT,H, | WEST CENTRAL | 214 |
| BROYLES,WATKINS,A, | GRAND RIVER | 078 |
| BRUBAKER,LEONARD,H, | BOONE | 026 |
| BRUCE,HELEN,M LYNCH, | ST. LOUIS CITY | 190 |
| BRUCE,LEO,A, | SEMO | 202 |
| BRUKARDT,DIANE,THERESE, | BOONE | 026 |
| BRUMM,LAWRENCE,W, | JACKSON | 098 |
| BRUNER,CLAUDE,R, | BOONE | 026 |
| BRUNER,ROBT,E, | JACKSON | 098 |
| BRUNS,KENNETH, | ST. LOUIS CITY | 190 |
| BRUST,CARL,H, | JACKSON | 098 |
| BRYAN,JAMES,H, | ST. LOUIS CITY | 190 |
| BRYAN,WM,H, | JACKSON | 098 |
| BRYAN,WM,THOS KIMLIN, | ST. LOUIS CITY | 190 |
| BRYANT,SYDNEY,LEE, | BUCHANAN | 030 |
| BRYANT,T,J, | JACKSON | 098 |
| BRYANT,W,O, | PEMISCOT | 170 |
| BUBEN,ROBT,WM, | MARION-RALLS-SHELBY | 130 |
| BUCHANAN,BARBARA,NEENAN, | JACKSON | 098 |
| BUCHER,WILLIAM,CHRISTIAN, | BOONE | 026 |
| BUCKNER,ROBT,C, | JACKSON | 098 |
| BUCY,JAMES,G, | ST. LOUIS CITY | 190 |
| BUDD,JOHN,J, | ST. LOUIS CITY | 190 |
| BUDKE,HAROLD,A, | JACKSON | 098 |
| BUEHLER,CARL,T, | MILLER | 134 |
| BUETTNER,JOHN,BRIGHAM, | ST. LOUIS CITY | 190 |
| BUHLER,VICTOR,B, | JACKSON | 096 |
| BUIE,BRUCE,RICHARD, | JACKSON | 098 |
| BUKSTEIN,MICHAEL,JEROME, | MARION-RALLS-SHELBY | 130 |
| BUMGARNER,JAMES,E, | BOONE | 026 |
| BUMGARNER,ROGER,W, | BOONE | 026 |
| BUNTING,WILLISTON,P, | JACKSON | 098 |
| BURCH,JOHN,ELLIS, | JASPER | 102 |
| BURCHAM,TOM,RICHARDSON, | MINERAL AREA | 138 |
| BURDE,RONALD,MARSHALL, | ST. LOUIS CITY | 190 |
| BURDGE,ROBERT,E, | ST. LOUIS CITY | 190 |
| BURFORD,EDWIN,K, | CAPE GIRARDEAU | 042 |
| BURGESS,DEAN, | ST. LOUIS CITY | 190 |
| BURK,EMMETT,KAY, | CLAY | 050 |

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|---|---|---|
| BURKE,ROBT,JOHN, | ST. LOUIS CITY | 190 |
| BURKEY,JOROAN,W, | GREENE | 062 |
| BURKHART,EOWARO,F, | ST. LOUIS CITY | 190 |
| BURLEIGH,BRUCE,WENTWORTH, | JASPER | 102 |
| BURMEISTER,RAY,WM, | ST. LOUIS CITY | 190 |
| BURNS,FRANCIS,JOHN, | ST. LOUIS CITY | 190 |
| BURNS,FRANCIS,R, | MARION-RALLS-SHELBY | 130 |
| BURNS,J,R, | ST. LOUIS CITY | 190 |
| BURNS,THOS,WAOE, | BOONE | 026 |
| BURNSIOE,CHAS,R, | ST. LOUIS COUNTY | 194 |
| BURR,OONALO,CLARENCE, | ST. LOUIS CITY | 190 |
| BURROUGHS,NATHAN,O, | CLAY | 050 |
| BURROWS,STEPHEN,O, | ST. LOUIS CITY | 190 |
| BURRY,VIRGIL,F, | JACKSON | 098 |
| BURST,OONALO,O, | ST. LOUIS CITY | 190 |
| BURSTEIN,ROBT, | ST. LOUIS COUNTY | 194 |
| BURTON,OALE,FORREST, | MARION-RALLS-SHELBY | 130 |
| BUSBY,WM,EUGENE, | COLE | 056 |
| BUSCH,ANTHONY,K, | ST. LOUIS CITY | 190 |
| BUSIEK,ERWIN,FREO, | GREENE | 082 |
| BUSIEK,PAUL,JOS, | GREENE | 082 |
| BUSIEK,URBAN,J, | GREENE | 082 |
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| CROCKETT,JAMES,E, | JACKSON | 098 |
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| CROSS,ALBERT,DEAN, | GRAND RIVER | D78 |
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| CROW,MARTIN,LOUIS, | JACKSON | D98 |
| CROWE,JOHN,T, | CAPE GIRARDEAU | D42 |
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| DALTON,TIMOTHY,THOS, | JACKSON | D98 |
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| JOHNSON,GARETH,ROBT PAUL, | JACKSON | 098 |
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| OVERHOLSER,MILTON,D, | BOONE | 026 |
| OWEN,ROBT,F, | ST. LOUIS CITY | 190 |
| OWENS,JAMES,LOUIS, | JACKSON | 098 |
| OWENS,JOHN,HOWARD, | PETTIS | 178 |
| OWENS,RICHARD,L, | JACKSON | 098 |
| OWENS,ROBT,H, | JACKSON | 098 |
| OWENS,WM,DON, | ST. LOUIS CITY | 190 |
| OZAR,MILTON,B, | JACKSON | 098 |
| OZENBERGER,LARRY,ALTON, | CLINTON | 054 |
| OZMAT,ORHAN,METIN, | ST. LOUIS CITY | 190 |

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| PACK,GARY,LEE, | JACKSON | 098 |
| PACKMAN,ROBT,CHAS, | ST. LOUIS CITY | 190 |
| PACULDO,NORA,N RAZON, | BUCHANAN | 030 |
| PADDOCK,CHAS,SAML, | JASPER | 102 |
| PADDOCK,GEORGE,OWEN, | GREENE | 062 |
| PADILLA,TERESITA,C, | ST. LOUIS CITY | 190 |
| PADULA,RICHARD,T, | JACKSON | 098 |
| PAEZ,MAURO,ALCALA, | ST. LOUIS COUNTY | 194 |
| PAGE,JESSE,W, | SEMO | 202 |
| PAINE,ROBT, | ST. LOUIS CITY | 190 |
| PAINTER,ANDREW,ERNEST, | PEMISCOT | 170 |
| PAINTER,LATTIE,B, | PEMISCOT | 170 |
| PAKULA,SIDNEY,F, | JACKSON | 098 |
| PALAZZO,FRANK,A, | ST. LOUIS CITY | 190 |
| PALCHEFF,CHRIS,L, | GREENE | 082 |
| PALEN,JAMES,E, | CAPE GIRARDEAU | 042 |
| PALENSKE,ROBT,LEON, | DUNKLIN | 070 |
| PALETTA,FRANCIS,XAVIER, | ST. LOUIS CITY | 190 |
| PALETTA,FRANK, | ST. LOUIS CITY | 190 |
| PALETTA,THEODORE,LEONARD, | ST. LOUIS CITY | 190 |
| PALETTA,VICTOR,LEONARD, | ST. LOUIS CITY | 190 |
| PALMER,RUSSELL,H, | MARION-RALLS-SHELBY | 130 |
| PALMERI,VICENTE,C, | CLAY | 050 |
| PAPPALARDO,CARLOS, | ST. LOUIS CITY | 190 |
| PAPRECK,K,THOMAS, | SALINE | 196 |
| PARDO,LEOPOLDO,P, | ST. LOUIS CITY | 190 |
| PARELMAN,ALLEN,GROVER, | JACKSON | 098 |
| PARIKH,SHARAD,P, | ST. LOUIS COUNTY | 194 |
| PARIS,WM,HENRY, | ST. LOUIS COUNTY | 194 |
| PARK,AGATHA,LEE, | ST. LOUIS COUNTY | 194 |
| PARK,CHONG,KWAN, | ST. LOUIS CITY | 190 |
| PARK,DUK,JAE, | JEFFERSON | 106 |
| PARK,KUN,HOEE, | ST. LOUIS CITY | 190 |
| PARK,WM,ISAIAH, | GREENE | 082 |
| PARK,YOUNG,EUY, | GRAND RIVER | 076 |
| PARKER,ARTHUR,C, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
| PARKER,BRENT,MERSHON, | BOONE | 026 |
| PARKER,HUBERT,M, | JACKSON | 098 |
| PARKER,THOS,WAYNE, | ST. LOUIS CITY | 190 |
| PARKISON,DONALD,EUGENE, | OZARKS | 166 |
| PARMAR,HARSHADRAI,K, | ST. LOUIS CITY | 190 |
| PARSONS,D,L, | CAPE GIRARDEAU | 042 |
| PARSONS,EUGENE,D, | JACKSON | 098 |
| PARSONS,RICHARD,PLATTNER, | ST. LOUIS CITY | 190 |
| PARTAMIAN,KRIKOR, | BUCHANAN | 030 |
| PARTAP,PRABHA, | ST. LOUIS CITY | 190 |

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* Doctor of Osteopathy

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| PARULEKAR,OILIP,G, | CALLAWAY | 036 |
| PARWATIKAR,SAOASHIY,O, | ST. LOUIS CITY | 190 |
| PASCOE,JAMES,J, | WEST CENTRAL | 214 |
| PASIA,EBELLO,TAYLOR, | ST. LOUIS COUNTY | 194 |
| PASKAR,LARRY,OAVIO, | ST. LOUIS CITY | 190 |
| PASSANANTE,BARTHOLOMEW,M, | ST. LOUIS CITY | 190 |
| PATEL,B,K, | ST. LOUIS CITY | 190 |
| PATEL,SHARAO,B, | ST. LOUIS CITY | 190 |
| PATRICK,ROMAN,LEE, | ST. LOUIS CITY | 190 |
| PATTAROPONG,THEERAWAT, | PEMISCOT | 170 |
| PATTERSON,CARROLL,DEAN, | CLAY | 050 |
| PATTERSON,OONALO,R, | JASPER | 102 |
| PATTERSON,GROVER,S, | JASPER | 102 |
| PATTON,OOUGLAS,STANNAGE, | ST. LOUIS CITY | 190 |
| PAUL,PAUL,V, | ST. LOUIS CITY | 190 |
| PAULSON,GOROON,S, | BUCHANAN | 030 |
| PAVLU,ROBT,RICHARO, | LAFAYETTE-RAY | 118 |
| PAWOL,SYLVESTER,E, | ST. LOUIS COUNTY | 194 |
| PAWSAT,JOHN,E, | JACKSON | 098 |
| PAYNE,OAVIO,E, | BOONE | 026 |
| PAYNE,JOHN,W, | BOONE | 026 |
| PAYNE,JOSEPH,R, | JACKSON | 098 |
| PAYNE,MEREOITH,C JORSTAO, | ST. LOUIS CITY | 190 |
| PAYNE,RICHARO,L, | ST. LOUIS CITY | 190 |
| PAYNE,VAUGHN,COLFAX, | ST. LOUIS CITY | 190 |
| PEARLMAN,ALAN,LEE, | ST. LOUIS CITY | 190 |
| PEARMAN,CARL,COURTNEY, | BOONE | 026 |
| PEARSE,ROY,W, | WEST CENTRAL | 214 |
| PEARSON,PAUL,ERNEST, | JACKSON | 098 |
| PECORARO,ANTHONY,PAUL, | JACKSON | 098 |
| PEOEN,BURNET,WILCOX, | ST. LOUIS CITY | 190 |
| PEOEN,JAMES,CLARK, | ST. LOUIS CITY | 190 |
| PEOEN,JOS,CARROLL, | ST. LOUIS CITY | 190 |
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| PEEBLES,JONATHAN,B, | ST. LOUIS COUNTY | 194 |
| PEETE,OON,CARLOS, | JACKSON | 098 |
| PELEGRIN,ROBT,JOS, | JACKSON | 098 |
| PELICAN,GEORGE, | ST. LOUIS CITY | 190 |
| PELZ,MORT,O, | ST. LOUIS CITY | 190 |
| PEMBERTON,LOARN,BEATY, | JACKSON | 098 |
| PENCE,FRANCIS,WENOELL, | JASPER | 102 |
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| PENNINGER,WILLIAM,H, | GREENE | 082 |
| PENNINGTON,FRANCIS,E, | ST. LOUIS CITY | 190 |
| PENNOYER,JAMES, | ST. LOUIS COUNTY | 194 |
| PEPPER,EOWARO,GEO, | ST. LOUIS CITY | 190 |
| PEPPER,MAX,PHILIP, | ST. LOUIS CITY | 190 |
| PEREZ-MESA,CARLOS,MANUEL, | BOONE | 026 |
| PEREZ,AOAMOR,R, | ST. LOUIS CITY | 190 |
| PEREZ,BLANCA,M, | ST. LOUIS CITY | 190 |
| PEREZ,CARLOS,A, | ST. LOUIS CITY | 190 |
| PEREZ,RAUL,ALBERTO, | ST. LOUIS CITY | 190 |
| PERICO,CARLOS,JOSE, | JACKSON | 096 |
| PERKINS,OAVIO,ELWOOO, | ST. LOUIS CITY | 190 |
| PERKOFF,GERALO,THOS, | ST. LOUIS CITY | 190 |
| PERLL,MAURICE,F, | JACKSON | 098 |
| PERLL,RITA,OOBEL, | JACKSON | 098 |
| PERNA,VINCENT,PATRICK, | ST. CHARLES-LINCOLN | 126 |
| PERNOUO,FLAVIUS,G, | ST. LOUIS CITY | 190 |
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| PERRY,HORACE,M, | ST. LOUIS CITY | 190 |
| PERRY,MICHAEL,CLINTON, | BOONE | 026 |
| PERRY,WM,OAVIO, | ST. LOUIS COUNTY | 194 |
| PESKIN,EOWARD,G, | ST. LOUIS CITY | 190 |
| PETERSEN,EUGENE,GEO, | JACKSON | 098 |
| PETERSEN,HAROLO,EOWARO, | BUCHANAN | 030 |
| PETERSON,BONITA,JEANNE, | JACKSON | 098 |
| PETERSON,CARL,MC KEE, | JACKSON | 098 |
| PETERSON,CHAS,RAYMONO, | BOONE | 026 |
| PETERSON,DONALD,B, | CALLAWAY | 038 |
| PETERSON,FREDERICK,O, | ST. LOUIS COUNTY | 194 |
| PETERSON,GARY,JOHN, | ST. LOUIS CITY | 190 |
| PETERSON,JAY,T, | JACKSON | 098 |
| PETERSON,STANLEY,S, | GREENE | 062 |
| PETERSON,WALTER,RICHARO, | JACKSON | 098 |
| PETIT PAZOS,CARLOS,A, | JACKSON | 098 |
| PETRY,EZRA,LUTHER, | JACKSON | 098 |
| PFEFER,LELANO,UOELL, | BOONE | 026 |
| PFEFFER-HURWITZ,JUDITH, | JACKSON | 098 |
| PFEFFER,ROBT,I, | BUCHANAN | 030 |
| PFEFFERKORN,OAVIO,ANOREW, | SEMO | 202 |
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| PFEIFFER,RALPH,BURTON, | GREENE | 062 |
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| PICKARO,NICHOLAS,STARK, | JACKSON | 098 |
| PICKENS,JAMES,MILTON, | BOONE | 026 |
| PICKERING,LEE,IRVING, | JACKSON | 096 |
| PIEBENGA,LARRY,WM, | JACKSON | 098 |
| PIEPERGEROES,LARRY,G, | JACKSON | 098 |
| PIFER,LAWRENCE,H, | BUCHANAN | 030 |
| PIKER,KENNETH,O, | GREENE | 082 |
| PILEGGI,FELIX,ANTHONY, | CLAY | 050 |
| PILLA,LAWRENCE,A, | ST. LOUIS CITY | 190 |
| PIMENTEL,ESPERANZA,M, | ST. LOUIS COUNTY | 194 |
| PIMENTEL,MAURICIO,F, | ST. LOUIS COUNTY | 194 |
| PINCKLEY,JAMES,N, | GREENE | 082 |
| PINEOA,HECTOR,O, | ST. LOUIS CITY | 190 |
| PINGELTON,WM,B, | BOONE | 026 |
| PINGLETON,WILLIAM,W, | CLAY | 050 |
| PINKERTON,JOS,A, | JACKSON | 098 |
| PINKSTAFF,THOS,HUGH, | SEMO | 202 |
| PINSKER,OSCAR,T, | JACKSON | 098 |
| PIPER,AUGUST,THOS, | ST. LOUIS CITY | 190 |
| PIPER,DONALD,K, | JACKSON | 098 |
| PIPKIN,GARRETT, | JACKSON | 096 |
| PITIYANUVATH,TASANAPORN, | JACKSON | 098 |
| PITNEY,PHILLIP,WILSON, | PIKE | 186 |
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| PITTMAN,SUSAN, | ST. LOUIS CITY | 190 |
| PIZZIMBONO,CARLOS,A, | ST. LOUIS CITY | 190 |
| PLACE,KENNETH,CRAIG, | JACKSON | 096 |
| PLATZ,JOHN,HERSCHEL, | GRAND RIVER | 076 |
| PLAX,STEVEN,IRL, | ST. LOUIS CITY | 190 |
| PLESONS,JOHN,O, | ST. LOUIS CITY | 190 |
| PLOWMAN,EDWARD,MORRIS, | MARION-RALLS-SHELBY | 130 |
| PLUMPE,WM,TUPPER, | ST. LOUIS CITY | 190 |
| PLUNKETT,LITTLETON,JAMES, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
| POORECCA,GUIDO,ITALICO, | GREENE | 082 |
| POGGEMEIER,WM,H, | ST. CHARLES-LINCOLN | 126 |
| POJANASOMBOON,PICHAT, | MID MISSOURI | 182 |
| POLITI,GREGORY,BRUNO, | JACKSON | 098 |
| POLITTE,LENARO,LUTHER, | BOONE | 026 |
| POLLAK,ERICH,W, | JACKSON | 098 |
| POLLOCK,LEO,HOWARO, | JACKSON | 096 |
| PONTILLAS,JOB,BAOIOLA, | PERRY-ST. GENEVIEVE | 174 |
| POONAWALA,HUSENI,E, | JACKSON | 098 |
| POOR,CARL,WM, | JASPER | 102 |
| POPE,CHAS,HENRY, | JACKSON | 098 |
| POPP,CARL,GEO, | SEMO | 202 |
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| PORTER,MICHAEL,JOS, | JACKSON | 098 |
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| POST,LAWRENCE,TYLER, | ST. LOUIS CITY | 190 |
| POST,STEPHEN,LIGHTNER, | ST. LOUIS CITY | 190 |
| POSTMA,GEORGE,S, | JACKSON | 098 |
| POTASHNICK,ROBT, | ST. LOUIS CITY | 190 |
| POTTENGER,LOWELL,KENNETH, | JASPER | 102 |
| POTTER,CARYL,A, | BUCHANAN | 030 |
| POTTER,LEE,GEO, | JACKSON | 098 |
| POTTER,REESE,H, | ST. LOUIS CITY | 190 |
| POTTS,OAN,E, | ST. LOUIS CITY | 190 |
| POTTS,OONALO,A, | JACKSON | 098 |
| POWELL,ALAN,EOWARO, | JACKSON | 098 |
| POWELL,CHARLES,B, | ST. LOUIS COUNTY | 194 |
| POWELL,EARL,ALEXANOER, | ST. LOUIS CITY | 190 |
| POWELL,EOWIN,MC AROLE, | GREENE | 082 |

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| POWELL,ROBT,G, | JASPER | 102 |
| POWERS,PIERCE,WM, | ST. LOUIS CITY | 190 |
| PRATER,BILL,G, | GREENE | 082 |
| PRATHER,WILLIAM,R, | CLAY | 050 |
| PRENSKY,ARTHUR,LAWRENCE, | ST. LOUIS CITY | 190 |
| PRESANT,CARY,A, | ST. LOUIS CITY | 190 |
| PRESNELL,CLEITUS,A, | ST. LOUIS CITY | 190 |
| PREVITI,VINCENT, | GREENE | 082 |
| PRICE,KENNETH,C, | ST. LOUIS CITY | 190 |
| PRINTZ,JOS,HAROLD, | JACKSON | 098 |
| PRINTZ,OTTO,J, | JACKSON | 098 |
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| PROBSTEIN,JACOB,G, | ST. LOUIS CITY | 190 |
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| PROKOP,JOS,ROBT, | BUCHANAN | 030 |
| PROPHETE,BEAUMANOIR, | ST. LOUIS CITY | 190 |
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| PRUETT,HUBERT,SHELBY, | ST. LOUIS CITY | 190 |
| PRUETT,PAUL,LEON, | GREENE | 082 |
| PRUSACZYK,JOS,VALENTINE, | ST. LOUIS CITY | 190 |
| PRYOR,HAROLD,JOE, | JACKSON | 098 |
| PRYOR,IRA,JOE, | JASPER | 102 |
| PU,PIN,HSIU, | DUNKLIN | 070 |
| PUCCI,GREGORY,LOUIS, | JACKSON | 098 |
| PUCKETT,CHAS,LINWOOD, | BOONE | 026 |
| PUGH,RICHARD,GEO, | JACKSON | 098 |
| PULLIAM,MORRIS,WADE, | BOONE | 026 |
| PURCELL,HARRY,KNOX, | ST. LOUIS CITY | 190 |
| PURCELL,JOHN, | ST. LOUIS CITY | 190 |
| PURCELL,PAUL,WOODFORD, | CLAY | 050 |
| PUTHEN-PURACKAL,GEORGE,A, | ST. LOUIS CITY | 190 |
| PYNE,HERBERT,SAML, | ST. LOUIS CITY | 190 |

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| QUER,ERICH,ALFRED, | JACKSON | 098 |
| QUICK,RICHARD,THOS, | ST. LOUIS CITY | 190 |
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| RACADIO,SEVERO,M, | ST. LOUIS COUNTY | 194 |
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| RAICHLE,MARCUS,EDWARD, | ST. LOUIS CITY | 190 |
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| RAMIREZ,SAML,GATAN, | ST. LOUIS CITY | 190 |
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| RAPHEL,JOSE, | BUCHANAN | 030 |
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| RAPPOLO,OTTO,HEINRICH, | ST. LOUIS CITY | 190 |
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| RATCHESON,ROBT,ALLAN, | ST. LOUIS CITY | 190 |
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| RAU,JEROLD, | JACKSON | 098 |
| RAVIS,MARK,STEVEN, | JACKSON | 098 |
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| REDDIN,PATRICK,CHAS, | AUDRAIN | 014 |
| REDDY,ABBIAH,NARAYANA, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
| REDDY,SARVOTHAM,KATANGUR, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
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| REISA,RONALD,CRAIG, | ST. CHARLES-LINCOLN | 126 |
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| REISS,JEANNE,E LEICK, | JACKSON | 098 |
| REISTER,DOROTHY,DAILEY, | JACKSON | 098 |
| REISTER,PHILIP,D, | JACKSON | 098 |
| REITER,FEDERICO,B, | ST. LOUIS COUNTY | 194 |
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| REVARE,PAUL, | CLAY | 050 |
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| TARRASCH,ERNEST,L, | GREENE | 082 |
| TARSON,SOLOMON,S, | JACKSON | 098 |
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| THOMAS,JAMES,REGAN, | BOONE | 026 |
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| VILLAMAR,ELIZABETH,N, | ST. LOUIS CITY | 190 |
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| WEIR,ROBT,KILEY, | JACKSON | 096 |
| WEIR,ROYAL,A, | ST. LOUIS CITY | 190 |
| WEIS,LANDY, | ST. LOUIS CITY | 190 |
| WEISMAN,RENATE,O, | ST. LOUIS COUNTY | 194 |
| WEISS,ALAN,N, | ST. LOUIS COUNTY | 194 |
| WEISS,HOWARD, | ST. LOUIS CITY | 190 |
| WEISS,JAMES,M A, | BOONE | 026 |
| WEISS,STUART, | ST. LOUIS CITY | 190 |
| WELDON,CLARENCE,SCHOCK, | ST. LOUIS CITY | 190 |
| WELDON,VIRGINIA,V, | ST. LOUIS CITY | 190 |
| WELL,JULIUS,WM, | MARION-RALLS-SHELBY | 130 |
| WELLS,DONALD,EUGENE, | JACKSON | 096 |
| WELLS,JAMES,ARTHUR, | JACKSON | 098 |
| WELLS,JOHN,H, | JACKSON | 098 |
| WELLS,STANLEY,D, | JACKSON | 096 |
| WELNER,AMOS, | ST. LOUIS COUNTY | 194 |
| WELNER,ZILA, | ST. LOUIS COUNTY | 194 |
| WELSH,LAURENCE,CHAS, | ST. LOUIS CITY | 190 |
| WELTSCHEFF,CHRISTO,A, | HENRY | 086 |
| WEMPE,GEO,RAYMOND, | NORTHWEST | 158 |
| WENNEKER,ALVIN,S, | ST. LOUIS COUNTY | 194 |
| WENNER,HERBERT,A, | JACKSON | 098 |
| WENTZEL,LOUIS,ROBT, | ST. LOUIS CITY | 190 |
| WERNER,DEAN,FRANKLIN, | CLAY | 050 |
| WERNER,FRANKLIN,CHACE, | CLAY | 050 |
| WERNER,HAROLD,VINCENT, | BOONE | 026 |
| WERNER,WM,ALBERT, | ST. LOUIS CITY | 190 |
| WERTH,JOS,ANDREW, | COLE | 058 |
| WEST,HAROLD,O, | JACKSON | 098 |
| WEST,JOS,W, | ST. LOUIS COUNTY | 194 |
| WESTERFELD,ROY,AUGUST, | ST. CHARLES-LINCOLN | 126 |
| WESTERMAN,ROBT,NEIL, | ST. LOUIS CITY | 190 |
| WESTHOFF,DAVID,DOUGLAS, | COLE | 058 |
| WESTRUP,ELLSWORTH,A, | ST. LOUIS COUNTY | 194 |
| WETZEL,GUS,S, | HENRY | 086 |
| WEYERICH,LEON,F, | ST. LOUIS CITY | 190 |
| WEYERICH,NOEL,FRANCIS, | ST. LOUIS COUNTY | 194 |
| WEYGANDT,GLENN,R, | ST. LOUIS CITY | 190 |
| WHEELER,CHAS,B, | JACKSON | 098 |
| WHEELER,ROBT,LE ROY, | WEST CENTRAL | 214 |
| WHITAKER,JAMES,HENRY, | JACKSON | 096 |
| WHITAKER,TOPSY,HATCHER, | SEMO | 202 |
| WHITE,BARRY,BARTON, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
| WHITE,BRUCE,IRWIN, | ST. LOUIS COUNTY | 194 |
| WHITE,CHAS,HERBERT, | JACKSON | 096 |
| WHITE,EUGENE,FLOYD, | MID MISSOURI | 162 |
| WHITE,JAMES,STARLING, | JACKSON | 098 |
| WHITE,JOS,MALLIE, | BOONE | 026 |
| WHITE,NEWTON,B, | ST. LOUIS COUNTY | 194 |
| WHITE,R,NED, | GREENE | 082 |
| WHITE,RUSSELL,D, | OZARKS | 166 |
| WHITE,STOUGHTON,F, | JACKSON | 098 |
| WHITE,WM,EMERSON, | JACKSON | 096 |
| WHITE,WM,HENRY, | ST. LOUIS CITY | 190 |
| WHITEMAN,JOHN,R, | JACKSON | 098 |
| WHITENER,MILES,CLARK, | ST. LOUIS COUNTY | 194 |
| WHITENER,PAUL,ROWLAND, | ST. LOUIS COUNTY | 194 |
| WHITLOCK,C,COURTNEY, | GREENE | 082 |
| WHITMAN,DANIEL,STEPHEN, | JACKSON | 098 |
| WHITMAN,DOYLE,COLLINS, | JACKSON | 096 |
| WHITMORE,J,STEWART, | JACKSON | 098 |
| WHITSELL,ORA,EARL, | BUCHANAN | 030 |
| WHITTAKER,CHAS,KEITH, | JACKSON | 096 |
| WHITTEN,J,STEPHEN, | CAPE GIRARDEAU | 042 |
| WHITTEN,M,FOSTER, | JASPER | 102 |
| WHITTICO,JAMES,M, | ST. LOUIS CITY | 190 |
| WHITTIER,FREDERICK,C, | BOONE | 026 |
| WIANT,JAMES,ROBINSON, | ST. LOUIS COUNTY | 194 |
| WICHIENKUER,PEIRUCH, | ST. LOUIS CITY | 190 |
| WICKS,EDWIN,O, | CLAY | 050 |
| WIEDERSHINE,LEONARD,J, | ST. LOUIS COUNTY | 194 |
| WIEGAND,HERBERT,CHAS, | ST. LOUIS CITY | 190 |
| WIEMAN,HARRY,K, | JASPER | 102 |
| WIEN,IRVING,A, | JACKSON | 098 |
| WIENCH,DELANE,FRANCIS, | MID MISSOURI | 162 |
| WIENKE,EUGENE,C, | ST. LOUIS CITY | 190 |
| WIGGINS,ROLAND,LEE, | BOONE | 026 |
| WILBER,ROBT,DAYTON, | JACKSON | 096 |
| WILBERS,RAYMOND,H, | AUDRAIN | 014 |
| WILBOIS,RONALD,PETER, | ST. LOUIS CITY | 190 |
| WILCOX,RUTH,E WRIGHT, | JASPER | 102 |
| WILCOXEN,WM,B, | PIKE | 166 |
| WILES,JACK,N, | SOUTH CENTRAL | 206 |
| WILHELM,WARREN,FRED, | JACKSON | 098 |
| WILKINS,MICHAEL,STEWART, | JACKSON | 098 |
| WILKINSON,CHAS,B, | JACKSON | 098 |
| WILKINSON,DAVID, | ST. LOUIS CITY | 190 |
| WILKINSON,EVERETT,A, | JACKSON | 098 |
| WILLCOXON,ROBT,LEONARD, | JASPER | 102 |
| WILLIAMS,ANDREW,F, | BOONE | 026 |
| WILLIAMS,CAROL,FRANCES, | ST. LOUIS CITY | 190 |
| WILLIAMS,FENTON,ALVIN, | JACKSON | 098 |
| WILLIAMS,FRANK,R, | JACKSON | 098 |
| WILLIAMS,GEO,PHILLIPS, | JACKSON | 098 |

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* Doctor of Osteopathy.

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|---|---|---|
| WILLIAMS,JOHN,MORTON, | CLAY | 050 |
| WILLIAMS,JOHN,WYLEY, | LAFAYETTE-RAY | 118 |
| WILLIAMS,JOS,C, | JACKSON | 096 |
| WILLIAMS,PAUL,ANTHONY, | CALLAWAY | 038 |
| WILLIAMS,RAY,DAVID, | ST. LOUIS CITY | 190 |
| WILLIAMS,ROBT,DEAN, | CLAY | 050 |
| WILLIAMS,ROLAND,DEAN, | JACKSON | 096 |
| WILLIAMS,ROY,JEROME, | ST. LOUIS CITY | 190 |
| WILLIAMS,STARKS,J, | JACKSON | 098 |
| WILLIAMS,THOS,ARTHUR, | JACKSON | 096 |
| WILLIAMS,WALTER,RICHARD, | ST. LOUIS CITY | 190 |
| WILLIAMSON,GEO,L, | CLAY | 050 |
| WILLIAMSON,WALTER,E, | ST. LOUIS CITY | 190 |
| WILLIS,H,ROBERT, | ST. LOUIS CITY | 190 |
| WILLMAN,CHAS,RHEINOLD, | BUCHANAN | 030 |
| WILLMAN,MARTIN,LEE, | ST. LOUIS CITY | 190 |
| WILLMAN,VALLEE,L, | ST. LOUIS CITY | 190 |
| WILLOUGHBY,JAMES,WHISNER, | JACKSON | 096 |
| WILLOUGHBY,JEAN,BROWN, | JACKSON | 098 |
| WILLUMSEN,HENRY,C, | BUCHANAN | 030 |
| WILSON,ALICE,HORNBUCKLE, | JASPER | 102 |
| WILSON,CHAS,F, | CAPE GIRARDEAU | 042 |
| WILSON,CLIFFORD,CHAS, | JACKSON | 098 |
| WILSON,DAVID,EARL, | CLAY | 050 |
| WILSON,FRED,K, | GRAND RIVER | 076 |
| WILSON,GEO,PATTERSON, | BOONE | 026 |
| WILSON,JOHN,EDWARD, | BOONE | 026 |
| WILSON,KEITH,SINGLETON, | ST. LOUIS CITY | 190 |
| WILSON,ROY,EDWARD, | GREENE | 082 |
| WILSON,SUSAN,LEE, | ST. LOUIS CITY | 190 |
| WILUCKI,MELVIN,RAYMOND, | ST. LOUIS CITY | 190 |
| WIMMER,WARREN,JOHN, | ST. LOUIS CITY | 190 |
| WINDMILLER,MYRL,EUGENE, | BOONE | 026 |
| WINDSOR,CHAS,EDWARD, | ST. LOUIS CITY | 190 |
| WINDSOR,DAVID,GEO, | BUCHANAN | 030 |
| WINEGAR,ALVON,C, | COLE | 058 |
| WINER,HERBERT,J, | JACKSON | 098 |
| WINER,MICHAEL,HOWARD, | ST. LOUIS CITY | 190 |
| WINER,NATHANIEL, | JACKSON | 096 |
| WINKELMAN,ESTHER,B, | JACKSON | 096 |
| WINN,GEO,WARREN, | COOPER | 062 |
| WINNACKER,JOHN,L, | BOONE | 026 |
| WINSKY,ARLEN,DUANE, | GREENE | 082 |
| WINSTON,BERNARD,HARRY, | JACKSON | 098 |
| WINTER,JOHN,HENRY, | ST. LOUIS CITY | 190 |
| WINTER,TYRUS,DOMINIC, | ST. LOUIS CITY | 190 |
| WINTERS,KATHLEEN, | ST. LOUIS CITY | 190 |
| WIPFLER,EARL,JOHN, | ST. CHARLES-LINCOLN | 126 |
| WIRTHLIN,EDWARD,HENRY, | ST. LOUIS COUNTY | 194 |
| WISE,GEO,W, | JACKSON | 098 |
| WISE,GORDON,F, | GREENE | 082 |
| WISE,MORRIS,FLARSHEIM, | JACKSON | 096 |
| WISSMATH,FRANK,SUM, | ST. LOUIS COUNTY | 194 |
| WISSNER,SETH,ERNST, | ST. LOUIS CITY | 190 |
| WITHERS,ORVAL,RAYMOND, | JACKSON | 096 |
| WITHROW,DONALD, | ST. LOUIS CITY | 190 |
| WITHROW,JOHN,B, | CLAY | 050 |
| WITT,CLYDE,MAX, | ST. LOUIS CITY | 190 |
| WITT,FRED,W, | ST. LOUIS CITY | 190 |
| WITTGEN,EDWARD,M, | ST. LOUIS CITY | 190 |
| WITTLER,HARRY,ALBERT, | ST. LOUIS COUNTY | 194 |
| WITTMER,SAML,C, | GREENE | 062 |
| WOCHNER,RAYMOND,DEAN, | ST. LOUIS CITY | 190 |
| WOEHL,JOS,JOHN, | JACKSON | 098 |
| WOLANSKI,EUGENE,G, | BUCHANAN | 030 |
| WOLCOTT,JAMES,B, | FRANKLIN-GASCONADE-WARREN | 074 |
| WOLF,JACK,W, | JACKSON | 098 |
| WOLF,MARION,L, | GREENE | 062 |
| WOLF,MITCHELL,LEON, | ST. LOUIS CITY | 190 |
| WOLFE,EDWARD,MARTIN, | ST. LOUIS COUNTY | 194 |
| WOLFE,JAMES,B, | GREENE | 082 |
| WOLFF,DOLORES,J PASKAR, | ST. LOUIS COUNTY | 194 |
| WOLFF,GERALD,ALLAN, | ST. LOUIS CITY | 190 |
| WOLFF,HAROLD,DAVID, | ST. LOUIS COUNTY | 194 |
| WOLFF,PAUL,G, | CAPE GIRARDEAU | 042 |
| WOLFF,RAY,J, | ST. LOUIS COUNTY | 194 |
| WOLFGRAM,EDWIN,DALE, | ST. LOUIS CITY | 190 |
| WOLFRAM,PHILIP,HERMAN, | CLAY | 050 |
| WOMMACK,FRED,LOREN, | OZARKS | 166 |
| WONG,GEO, | GREENE | 082 |
| WOOD,BENNETT,RAYMOND, | ST. LOUIS CITY | 190 |
| WOOD,DAVID,G, | JACKSON | 098 |
| WOOD,GEO,FRANK, | CALLAWAY | 038 |
| WOOD,GEO,HARMON, | JASPER | 102 |
| WOOD,JAMES,ALBION, | ST. LOUIS COUNTY | 194 |
| WOOD,JOHN,A, | ST. LOUIS COUNTY | 194 |
| WOOD,THOS,OWEN, | BUTLER-WAYNE-RIPLEY-CARTER | 034 |
| WOODRUFF,CALVIN,W, | BOONE | 026 |
| WOODRUFF,SHARON,LYNN, | ST. LOUIS COUNTY | 194 |
| WOODS,HAROLD,VERNON, | JACKSON | 096 |
| WOODS,SAML,DWIGHT, | JACKSON | 098 |
| WOODS,WALTON,CLAY, | JACKSON | 098 |
| WOODWARD,WM,WIRT, | JACKSON | 098 |
| WOOL,GERALD, | ST. LOUIS COUNTY | 194 |
| WOOLDRIDGE,WILFRED,E, | GREENE | 082 |
| WOOLSEY,JOYCE,E DEVINE, | ST. LOUIS CITY | 190 |
| WOOLSEY,ROBT,MICHAEL, | ST. LOUIS CITY | 190 |
| WORKMAN,CHAS,E, | CLAY | 050 |
| WORKMAN,GEO,M, | FRANKLIN-GASCONADE-WARREN | 074 |
| WORLEY,CHAS,A, | PETTIS | 178 |
| WORTMANN,ROBT,FRANCIS, | JACKSON | 098 |
| WOTAWA,WM,J, | ST. LOUIS CITY | 190 |
| WRAY,ROBT,CHRISTIE, | ST. LOUIS CITY | 190 |
| WRAY,ROLLA,BOYD, | WEST CENTRAL | 214 |
| WRIGHT,EARL,JOS, | CLAY | 050 |
| WRIGHT,R,PAUL, | JACKSON | 098 |
| WU,SHUH-MIN, | JACKSON | 096 |
| WU,WM,QUO, | JACKSON | 098 |
| WULFF,GEO,J L, | ST. LOUIS COUNTY | 194 |
| WURR,DIETER,H, | ST. LOUIS CITY | 190 |
| WURSTER,JERRY,BURL, | JACKSON | 098 |
| WURSTER,W,JOEL, | JACKSON | 098 |
| WYATT,LOIS,CAROLYN, | ST. LOUIS COUNTY | 194 |
| WYRSCH,LEO,M, | GREENE | 082 |

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| XYNOS,FRANCIS, | ST. LOUIS CITY | 190 |

### Y

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|---|---|---|
| YAEGER,GERALD,A, | ST. CHARLES-LINCOLN | 126 |
| YALCIN,ENVER, | ST. LOUIS COUNTY | 194 |
| YANCEY,DANIEL,L, | GREENE | 082 |
| YANKASAMMY,SAMUEL,D, | JACKSON | 098 |
| YANNAKAKIS,JOHN,ELIAS, | ST. LOUIS CITY | 190 |
| YANOW,MITCHELL, | ST. LOUIS COUNTY | 194 |
| YAP,MARDONIO,J R, | ST. LOUIS COUNTY | 194 |
| YARBRO,JOHN,WILLIAMSON, | BOONE | 026 |
| YASIN,FAZLE,MOBIN, | ST. LOUIS COUNTY | 194 |
| YATES,DARREL,WAYNE, | ST. LOUIS CITY | 190 |
| YAZDI,ATAOLLAH,MOSLEH, | ST. LOUIS COUNTY | 194 |
| YEAGER,HELEN,E, | BOONE | 026 |
| YESUS,YOHANNES,W, | BOONE | 026 |
| YIN,PO-CHIN,H, | ST. LOUIS CITY | 190 |
| YLAGAN,AMANDO, | ST. LOUIS CITY | 190 |
| YOON,JIN,SOO, | GRAND RIVER | 076 |
| YORE,RICHARD,WM, | ST. LOUIS CITY | 190 |
| YOSELEVSKY,ROBERT, | ST. LOUIS CITY | 190 |
| YOSKIT,HARRY, | JEFFERSON | 106 |
| YOULL,DONALD,VERNON, | JACKSON | 098 |
| YOUMANS,RONALD,ALAN, | JACKSON | 098 |
| YOUNG,CALVIN,CLYDE, | JASPER | 102 |
| YOUNG,JAMES,E, | JACKSON | 098 |
| YOUNG,JESSE,W, | JACKSON | 098 |
| YOUNG,ROBT,B, | MID MISSOURI | 182 |
| YOUNG,THOS,JAMES, | BUCHANAN | 030 |
| YOUNGBLOOD,JAMES,PETER, | JACKSON | 098 |
| YOUNGE,WALTER,A, | ST. LOUIS CITY | 190 |
| YOUNGER,ANITA,C, | ST. LOUIS CITY | 190 |
| YOUNGER,ERNEST, | ST. LOUIS CITY | 190 |
| YU,MARIO,K, | JACKSON | 098 |

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| | | |
|---|---|---|
| ZACHARIAS,KULANGARA,P, | ST. LOUIS CITY | 190 |
| ZAHN,ROBT,LLOYD, | GREENE | 082 |
| ZAHONY,IVAN, | JACKSON | 096 |
| ZAHORSKY,CARROLL,LE ROY, | JACKSON | 098 |
| ZAHORSKY,THEODORE,S, | ST. LOUIS CITY | 190 |
| ZEFFREN,J,LESTER, | ST. LOUIS CITY | 190 |
| ZEIGLER,JOS,MARTIN, | ST. LOUIS COUNTY | 194 |
| ZEKERT,HORST, | ST. LOUIS CITY | 190 |
| ZELLER,DARRELL,EUGENE, | JACKSON | 098 |
| ZERR,CHARLES,HARVEY, | JACKSON | 098 |
| ZIEGELMEYER,JOHN,SIMON, | ST. LOUIS CITY | 190 |
| ZIEGLER,VINCENT,E, | ST. LOUIS CITY | 190 |
| ZIEMIANSKI,MATTHEW,C, | JACKSON | 098 |

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|---|---|
| ZIMMERMAN,HERBERT,B,<br>ST. LOUIS COUNTY | 194 |
| ZIMMERMAN,JOE,A,<br>DUNKLIN | 070 |
| ZINGALE,FRANK,GEO,<br>ST. LOUIS CITY | 190 |
| ZIVNUSKA,FREDERICK,R,<br>ST. LOUIS CITY | 190 |
| ZOFFUTO,ANTHONY,C,<br>SEMO | 202 |
| ZOGRAFAKIS,GEO,H,<br>ST. LOUIS CITY | 190 |
| ZOLLER,DAVID,DE BOIS,<br>JACKSON | 09B |
| ZUCKNER,JACK,<br>ST. LOUIS CITY | 190 |
| ZUKOWSKI,EDWARD,THEODORE,<br>ST. LOUIS CITY | 190 |
| ZWART,CLAUDE,HENRIET,<br>ST. LOUIS CITY | 190 |
| ZWERENZ,BRUNO,H,<br>JACKSON | 09B |
| ZWIRN,HANS,BENJ,<br>ST. LOUIS COUNTY | 194 |

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# List of Designated Specialty Codes

The following specialties, including General Practice, are recognized by the American Medical Association.

| | |
|---|---|
| **AM** | Aerospace Medicine |
| **A** | Allergy |
| **AN** | Anesthesiology |
| **BE** | Broncho-Esophagology |
| **CD** | Cardiovascular Diseases |
| **D** | Dermatology |
| **DIA** | Diabetes |
| **EM** | Emergency Medicine |
| **END** | Endocrinology |
| **FP** | Family Practice |
| **GE** | Gastroenterology |
| **GP** | General Practice |
| **GPM** | General Preventive Medicine |
| **GER** | Geriatrics |
| **GYN** | Gynecology |
| **HEM** | Hematology |
| **HYP** | Hypnosis |
| **IG** | Immunology |
| **ID** | Infectious Diseases |
| **IM** | Internal Medicine |
| **LAR** | Laryngology |
| **LM** | Legal Medicine |
| **ND** | Neoplastic Diseases |
| **NEP** | Nephrology |
| **N** | Neurology |
| **CHN** | Neurology, Child |
| **NA** | Neuropathology |
| **NM** | Nuclear Medicine |
| **NTR** | Nutrition |
| **OBS** | Obstetrics |
| **OBG** | Obstetrics and Gynecology |
| **OM** | Occupational Medicine |
| **ON** | Oncology |
| **OPH** | Ophthalmology |
| **OT** | Otology |
| **OTO** | Otorhinolaryngology |
| **PTH** | Pathology |
| **CLP** | Pathology, Clinical |
| **FOP** | Pathology, Forensic |
| **PD** | Pediatrics |
| **PDA** | Pediatrics, Allergy |
| **PDC** | Pediatrics, Cardiology |
| **PA** | Pharmacology, Clinical |
| **PM** | Physical Medicine and Rehabilitation |
| **P** | Psychiatry |
| **CHP** | Psychiatry, Child |
| **PYA** | Psychoanalysis |
| **PYM** | Psychosomatic Medicine |
| **PH** | Public Health |
| **PUD** | Pulmonary Diseases |
| **R** | Radiology |
| **DR** | Radiology, Diagnostic |
| **PDR** | Radiology, Pediatric |
| **TR** | Radiology, Therapeutic |
| **RHU** | Rheumatology |
| **RHI** | Rhinology |
| **ABS** | Surgery, Abdominal |
| **CDS** | Surgery, Cardiovascular |
| **CRS** | Surgery, Colon and Rectal |
| **GS** | Surgery, General |
| **HS** | Surgery, Hand |
| **HNS** | Surgery, Head and Neck |
| **NS** | Surgery, Neurological |
| **ORS** | Surgery, Orthopedic |
| **PDS** | Surgery, Pediatric |
| **PS** | Surgery, Plastic |
| **TS** | Surgery, Thoracic |
| **TRS** | Surgery, Traumatic |
| **U** | Surgery, Urological |

In addition to the above specialties, the following designation is also used:

| | |
|---|---|
| **OS** | Other, i.e., physician designated a specialty other than those appearing above. |

# Roster of Members by Component Societies

(See Instructions on Page 427)

## 010—ANDREW

BAKER,WARREN,C, GP
703 HIGHWAY
SAVANNAH 64485
KELLEY,GILBERT,BYRON, GP
703 W HIGHWAY
SAVANNAH 64485
VILLAHERMOSA,JUANITO,L, GS
703 W HIGHWAY
SAVANNAH 64485

## 014—AUDRAIN

AJANS,ZAKI,A K, P
704 E MONROE
MEXICO 65265
BOYCE,JOHN,MILTON, PTH
2703 CLARKLN
COLUMBIA 65201
BRADLEY,WM,WYMORE, GP
120 N ROLLINS
CENTRALIA 65240
COMFORT,GEO,DAVID, FP
MEDICAL BLDG
626 SUMMIT
MEXICO 65265
COTTEY,JOHN,HIGBEE, GS
MEX PROF BLDG SUM MED PK STE D
MEXICO 65265
DAUT,DONALD,WALTER, IM
200 E MONROE ST
MEXICO 65265
DAVIS,LEONARD,L, ORS
626 SUMMIT
MEXICO 65265
EKERN,HERMAN,PETER, GP
626 SUMMIT
MEXICO 65265
GARCIA,CHAS,LEON, GP
203 E JACKSON ST
MEXICO 65265
GUALBERTO,CRISANTO, GS
209 W WASHINGTON
VANDALIA 63382
HOXWORTH,GERALD,MONROE, OR
415 E MONROE
MEXICO 65265
HUQ,MD,NASRUL, OPH
HUQ PROFESSIONAL EYE SERVICE
MEXICO PROF BLDG SUITE G
626 SUMMIT MEDICAL PARK
MEXICO 65265
JOLLY,BENJ,NEWTON, GS
112 N CLARK ST
MEXICO 65265
JOLLY,WM,HARDIN, GS
112 N CLARK ST
MEXICO 65265
KALLENBACH,GLEN,P, GP
P O BOX 249
MEXICO 65265
LANKFORD,HAROLD,DAVID, GP
626 SUMMIT SUITE B
MEXICO 65265
MULLEN,MARY,ELLEN, IM
RT 1 BOX 43
RUSH HILL 65280
NADINDLA,CHENNAIAH,CHINNA, GS
JCT PLEASANT & 54 EAST
FARBER 63345
O'BRIEN,HARRY,FRANCIS, GP
111 E MONROE ST
MEXICO 65265
REDDIN,PATRICK,CHAS, OBG
WALLMAR & BUILDING
MEXICO 65265
RODES,NED,DE WITT, GS
115 BUSINESS LOOP MO W
COLUMBIA 65201
SIRIPIPAT,PALLOP, PTH
626 SUMMIT ST
MEXICO 65265
WALLACE,EDGAR,SHAW, OTO
626 SUMMIT MEDICAL PARK
MEXICO 65265
WILBERS,RAYMOND,H, GS
113 E MONROE
MEXICO 65265

## 018—BARTON

ARNOLD,HERBERT,MILLER, GP
1204 GULF ST
LAMAR 64759
BICKEL,VERN,T, GS
202 W 2ND ST
LAMAR 64759
CAIN,ALVIN,R, GP
P O BOX 572
LAMAR 64759
CARROLL,THOS,W, GP
BOX 368
LAMAR 64759

## 026—BOONE

ABADIR,RUSHDY, R
807 STADIUM
COLUMBIA 65201
ADAMS,HAROLD,DEAN, PD
1460 SUTTERVILLE RD
SACRAMENTO CA 95822
ALLEN,JOS,E, OTO
5813 ST CHARLES RD
COLUMBIA 65201
ALLEN,ROBERT,WILLIAM, PM
2007 S COUNTRY CLUB DR
COLUMBIA 65201
ALLEN,WILLIAM,C, ORS
SECTION ORTHOPAEDICS
UNIV MEDICAL SCHOOL
COLUMBIA 65201
ALLEN,WM,C, GPM
508 W BRIARWOOD LANE
COLUMBIA 65201
ALMOND,CARL,H, TS
807 STADIUM RD
COLUMBIA 65201
ALYEA,JAMES,OGDEN, AN
807 STADIUM
COLUMBIA 65201
AMES,MARY,CAROLYN, OS
VA HOSPITAL
800 STADIUM RD
COLUMBIA 65201
AMROMIN,GEORGE,DAVID, NA
UNIVERSITY OF MISSOURI MED CTR
DEPT OF PATHOLOGY
COLUMBIA 65201
ANDERSON,IVAN,AXEL, GP
1407 18TH ST
BETTENDORF IA 52722
ANDERSON,PHILIP,CARR, O
807 STADIUM RD
COLUMBIA 65201
ANDERSON,THOS,RAMSEY, P
STROLLWAY CENTRE
COLUMBIA 65201
ANIS,ONSSY,HANNA, TR
807 STADIUM
COLUMBIA 65201
ARNOLD,RICHARD,C, PH
P O BOX 53
COLUMBIA 65201
ARTHAUD,J,BRADLEY, PTH
807 STADIUM RD
COLUMBIA 65201
ASEL,NORMAN,DONALD, O
1502 E BROADWAY
COLUMBIA 65201
BAKER,ALBERT,SHERWOOD, FP
807 STADIUM ROAD
COLUMBIA 65201
BAKER,JAMES,M, GS
16 S 10TH ST
COLUMBIA 65201
BARBEE,CHAS,WALKER, GS
401 N KEENE
COLUMBIA 65201
BARBERO,GIULIO,JOHN, PD
UNIV OF MISSOURI SCH MED
COLUMBIA 65201
BAUER,JOHN,H, IM
UNIVERSITY OF MO MED CTR
COLUMBIA 65201
BECK,MARCUS,RICHARD, PTH
PO BOX 998
COLUMBIA 65201
BIRKBY,WM,FRANCIS, FP
1502 EAST BROADWAY
COLUMBIA 65201
BLACK,SAML,PAUL WEST, NS
300 S GLENWOOD STREET
COLUMBIA 65201
BLACKWELL,CHAS,WILFRED, R
201 W BROADWAY
COLUMBIA 65201
BLAND,HAROLD,EDWARD, PD
UNIVERSITY OF MO MEDICAL CTR
807 STADIUM ROAD
COLUMBIA 65201
BOHAN,JAMES,A, FP
FAMILY MEDICAL CARE CTR
UNIVERSITY OF MO MED CTR
COLUMBIA 65201
BOURGEOIS,CURTIS,HORATIO, PTH
P O BOX 118
ROCHEPORT 65279
BOWER,ROGER,HARRISON, END
UMC MED CTR
COLUMBIA 65201
BRADSHAW,WM,DAVID, FP
3408 B WOODRAIL TERR
COLUMBIA 65201
BROOKS,CHARLES,STEPHEN, IM
UNIVERSITY OF MO MED CTR
COLUMBIA 65201
BRUBAKER,LEONARD,H, IM
807 STADIUM
COLUMBIA 65201
BRUKARDT,DIANE,THERESE, IM
STUDENT HEALTH SERVICE
UNIV OF MO
COLUMBIA 65201
BRUNER,CLAUDE,R, OPH
STAR RTE B BOX 5-HD
CAMDENTON 65020
BUCHER,WILLIAM,CHRISTIAN, PTH
2703 CLARK LANE
COLUMBIA 65201
BUMGARNER,JAMES,E, U
1504 E BROADWAY
COLUMBIA 65201
BUMGARNER,ROGER,W, AN
BOX 975
COLUMBIA 65201
BURNS,THOS,WADE, END
310 E BRANDON RD
COLUMBIA 65201
BUTT,JAMES,HORTON, GE
VET ADMIN HOSP-DEPT MED
800 STADIUM DR
COLUMBIA 65201
BYER,JOHN,ALBERT, N
UNIV SCH OF MED DEPT NEUR
COLUMBIA 65201
BYNUM,WM,R, PTH
P O BOX 998
COLUMBIA 65201
CALLEN,KENNETH,EUGENE, P
807 STADIUM RD
COLUMBIA 65201
CANOY,NESTOR,RABE, R
ELLIS FISCHEL CANCER HOSP
COLUMBIA 65201
CARNAHAN,CHAS,EUGENE, PD
3801 CEDAR
COLUMBIA 65201
CARTER,RONALD,O, ORS
3205 LANSING AVENUE
COLUMBIA 65201
CHALKLEY,JUDSON,I, DR
1502 E BROADWAY
BOONE COUNTY HOSP
COLUMBIA 65201
CHANG,CHIL,KWANG, AN
EASTGATE BUILDING
COLUMBIA 65201
CHAPEL,JAMES,L, CHP
807 STADIUM RD
COLUMBIA 65201
CHAPMAN,CHARLES,LARRY, IM
401 KEENE
COLUMBIA 65201
CHEEK,CHAS,WM, OPH
3205 LANSING AVE
COLUMBIA 65201
CHIASSON,EMMERSON,C, P
P O BOX 1077
COLUMBIA 65201
COCHRAN,DONALD,Q, R
1502 E BROADWAY
COLUMBIA 65201
COHEN,HARRY,BERNARD, AN
UNIV OF MO MEDICAL CENTER
DEPT OF ANESTHESIOLOGY
COLUMBIA 65201
COLWILL,JACK,MARSHALL, OS
R R 5
COLUMBIA 65201
COOPER,MAURICE,E, GP
1000 WAYNE RD
COLUMBIA 65201
COOPERSTOCK,MICHAEL,S, ID
N 717 807 STADIUM RD
COLUMBIA 65201
COPE,JAMES,C, U
ROUTE #1
ROCHEPORT 65279
COWLES,ALAN,LAURENCE, IM
FAMILY MEDICINE CLINIC
UNIVERSITY MEDICAL CENTER
COLUMBIA 65201
CRAIG,HERBERT,WARNER, PM
UNIV OF MO MED CTR-PHY MED
COLUMBIA 65201
CROWLEY,WM,JAMES, N
11 S WILLIAM
COLUMBIA 65201

CULLEY,THOMAS,S, DRS
607 STADIUM RO
COLUMBIA 65201
CUNDIFF,HARRY,CLAY, OPH
607 STADIUM
COLUMBIA 65201
CUNNINGHAM,MILAMARI,A, AN
UNIVERSITY OF MD MED CTR
COLUMBIA 65201
DARNELL,THOS,F B, D
9-A LAKEWODD ESTATES
BRANSDN 65616
OAVIS,DAVID, P
801 CRESTLAND AVENUE
COLUMBIA 65201
DAVIS,WM,EUGENE, OTO
807 STADIUM
COLUMBIA 65201
DE PAUW,ARTHUR,PHILIP, U
UNIV MO MED CTR
807 STADIUM
COLUMBIA 65201
DENNINGHOFF,JAMES,C, IM
201 W BROADWAY
COLUMBIA 65201
DEXHEIMER. FRANK R. GS
909 UNIVERSITY AVE.
COLUMBIA 65201
DEXTER,JAMES,DUANE, N
UNIV OF MISSDURI SCH DF MED
COLUMBIA 65201
O1CKHAUS,DONALD,WM, CD
UNIV OF MO MED CTR
COLUMBIA 65201
DOSS,LARRY,LEE, TR
115 BUSINESS LOOP 70 W
COLUMBIA 65201
EASTON,J,OONALD, N
607 STADIUM ROAD
COLUMBIA 65201
EDDY,RICHARO,L, END
UNIV OF MO MEO CEN
COLUMBIA 65201
EGGERS,GEO,WM N, AN
UNIV OF MO SCHOOL MEO
COLUMBIA 65201
ELYASSI,HEOAYATOLLAH, AN
807 STAOIUM RD
COLUMBIA 65201
ESTERLY,JAMES,ALLEN, PTH
807 STADIUM
COLUMBIA 65201
FARRELL,CORINNE, NO
UNIV OF MO MED SCI OEPT R
COLUMBIA 65201
FAVAZZA,ARMANDO,R, P
807 STADIUM
COLUMBIA 65201
FERNEAU,JAMES,EDWARD, OBG
401 KEENE ST
COLUMBIA 65201
FOOTE,JERRY,EOWARD, D
1504 E BRDADWAY
COLUMBIA 65201
FRAKES,JAMES,T, IM
UNIV OF MO MED CTR
OEPT OF MEDICINE
CDLUMBIA 65201
FRAZIER,ROBT,EDWARO, P
113 W BROADWAY
COLUMBIA 65201
FREEMAN,JAMES,A, IM
113 W BROADWAY
COLUMBIA 65201
FRISTOE,FRANK,H, PTH
U MO-COLUMBIA MEO CTR DPT PTH
COLUMBIA 65201
FRUEH,BARTLEY,RICHARD, OPH
909 UNIVERSITY AVENUE
COLUMBIA 65201
FUCHS,GEO,JOS, DBG
1504 E BROADWAY
COLUMBIA 65201
GAMBILL,ALICE,F, AN
1024 HARVARO
COLUMBIA 65201
GARRETT,GLEN,HARLEY, OTO
COLUMBIA PRDFESSIONAL BLOG
COLUMBIA 65201
GARROTTO,LEWIS,JOSEPH, OR
814 HULEN DRIVE
COLUMBIA 65201
GASTON,LAMONT,W, HEM
M644 UNIV MD MED CTR
807 STAOIUM RO
COLUMBIA 65201
GATES,OAVIS,F, U
1502 E BRDADWAY
COLUMBIA 65201
GAUNT,WM,OANFORTH, IM
807 STADIUM RO
COLUMBIA 65201
GODSHALK,MIRIAM,FREDRICA, AN
UNIV OF MO DEPT ANES
COLUMBIA 65201

GDRODN,BRUCE,JEFFREY, AN
ANESTHESIDLDGISTS INC
P D BDX 975
CDLUMBIA 65201
GRAGNANI,JDHN, PM
RDUTE 10
CDLUMBIA 65201
GRAY,JAMES,EDWARD, GE
OEPT DF MEDICINE
UMMC CDLUMBIA
CDLUMBIA 65201
GREGDRIUS,CHARLES,D, AN
UNIV DF MD MEDICAL CENTER
CDLUMBIA 65201
GRIFFIN,WM,THDS, DBG
807 STAOIUM RD
CDLUMBIA 65201
GROSHDNG,TED,DONALD, PD
UNIV DF MD MED CTR
COLUMBIA 65201
HAIBACH,HELMUT, NM
H S TRUMAN MEMORIAL VA HOSP
COLUMBIA 65201
HALL,DAVIO,G, OBG
607 STADIUM RD
COLUMBIA 65201
HARDWICKE,HENRY,M, PM
ASHLAND 65010
HARRIS,HUGH,SMITH, GS
801 COWAN DR
COLUMBIA 65201
HARRIS,ROBT,JDEL, PD
2505 E BRCAOWAY
COLUMBIA 65201
HARRISON,WINSTON,EFTON, U
1220 SUNSET DR
COLUMBIA 65201
HART,WM,MILTON, OPH
404 PORTLANO ST
EYE RES FNDN
COLUMBIA 65201
HAW,MARVIN,TINSLEY, GER
1807 JACKSON ST
COLUMBIA 65201
HAWKINS,JAMES,C, GP
806 STADIUM
COLUMBIA 65201
HEIMBERG,MURRAY, OS
MISSOURI SCH OF MED-PHAR-MEO
COLUMBIA 65201
HEIMBURGER,ELIZABETH,M W, FP
807 STADIUM
COLUMBIA 65201
HEIMBURGER,RICHARD,AMES, PS
1504 EAST BROADWAY
CDLUMBIA 65201
HENRY,LAWRENCE,DAYLE, PTH
2703 CLARK LA
COLUMBIA 65201
HENSTORF,HAROLD,R, R
UNIV OF MO MED CTR DEPT R
COLUMBIA 65201
HENZEL,JOHN,HAROLO, GS
607 STADIUM
COLUMBIA 65201
HICKCOX,JOHN,P, DRS
3205 LANSING AVE
COLUMBIA 65201
HOFMEISTER,ROGER,WALTER, FP
807 STAOIUM
COLUMBIA 65201
HOLMES,RICHARD,ALLEN, NM
807 STADIUM RD
COLUMBIA 65201
HOWITT,HARVEY,F, DPH
3205 LANSING AVE
COLUMBIA 65201
HUBBELL,IRA,GEO, AN
302 MC NAB
COLUMBIA 65201
HURST,OANIEL,J, PUO
OEPT OF MEDICINE
MO MEOICAL CENTER
COLUMBIA 65201
HUSAIN,SYED,A, CHP
807 STAOIUM
COLUMBIA 65201
HYATT,ROBT,WAYNE, IM
113 W BROADWAY
COLUMBIA 65201
IOE,CARL,H, OPH
1008 BOURN AVE
COLUMBIA 65201
IRVIN,WILLIAM,SEMPLE, RHU
DEPT OF MEDICINE
UNIV OF MO MEO CTR
COLUMBIA 65201
JACKSON,ROBT,LAWRENCE, PD
807 STAOIUM
COLUMBIA 65201
JAMES,ELIZABETH,J P, PD
UNIV MO MEO CTR OEPT PD
COLUMBIA 65201
JAMES,RONALO,CARNEY, END
610 W BLVD SOUTH
COLUMBIA 65201

JDHNSDN,RICHARD,EDWARD, PTH
BDONE CDUNTY HDSP
CDLUMBIA 65201
JDHNSTDN,WM,DAVID, GS
E FISHEL CANCER HOSP
COLUMBIA 65201
JDSEPH,DONALD,J, DTO
UNIV MD SCH OF MED
COLUMBIA 65201
KAPLAN,MICHAEL,FREDERICK, PS
1409 DVERHILL RDAO
CDLUMBIA 65201
KARDINAL,CARL,GUSTAV, HEM
E FISCHEL STATE CANCER HDSP
CDLUMBIA 65201
KAYS,KENNETH,MITCHELL, R
1502 E BRDAOWAY
CDLUMBIA 65201
KEITHLY,DENNIS,J, FP
1502 E BROADWAY
COLUMBIA 65201
KEITZER,WALTER,FORD, GS
4009 ACAPULCO
IRVING TX 75062
KEOWN,KENNETH,K, AN
UNIV OF MO SHCOOL MEO
COLUMBIA 65201
KERR,SAML,EARL, PTH
1201 HAVASU DR
PRESCOTT AZ 86301
KING,ROBERT,JOHN, U
1502 BROAOWAY
COLUMBIA 65201
KLACHKO,OAVID,M, IM
OEPT MEO
M712MEO SCI
UNIV MD MED CTR
COLUMBIA 65201
KUBIN,MILFDRD,T, IM
541-17 MILE OR
PACIFIC GROVE CA 93950
KUTZEN,BARRY,MICHAEL, R
UMC RADIOLOGY
COLUMBIA 65201
LABABIDI,ZUHDI,A, POC
UNIV DF MO COLL OF MED DEPT PD
COLUMBIA 65201
LACHANCE,J,A LEDPDLD, FP
110 W SNEED AVE
CENTRALIA 65240
LADENSON,ROLAND,PAUL, IM
16 S 10TH ST
COLUMBIA 65201
LAMBERTI,JOS,WM, P
UNIV OF MISSOURI MEO CTR
COLUMBIA 65201
LANOHUIS,LEO,RAY, OPH
3205 LANSING AVE
COLUMBIA 65201
LEECH,CHAS,ALBERT, GP
1504 E BROADWAY
COLUMBIA 65201
LEEPER,CLAUDE,K, CLP
UNIV OF MD MEO CTR DEPT PATH
COLUMBIA 65201
LEEPER,SIDLEE,WM, IM
1504 E BROADWAY
COLUMBIA 65201
LINDBERG,DONALD,A B, PTH
ROUTE 4
COLUMBIA 65201
LITTON,LYNN,O, ORS
MEO CTR OF INDEP
23RD & RD MIZE
INDEPENDENCE 64055
LITWILLER,RAYMONO,W, GP
1312 W BROAOWAY
COLUMBIA 65201
LLORENS,ALFRED,S, GYN
807 STADIUM RO
UMMC
COLUMBIA 65201
LOBECK,CHARLES,C, PO
RR 4
COLUMBIA 65201
LODWICK,GWILYM,SAVAGE, R
911 LA GRANGE
COLUMBIA 65201
LOGUE,JDHN,TERRELL, IM
1504 E BROAOWAY ST
COLUMBIA 65201
LOHMAR,ROLAND,EOWARD, IM
113 W BROADWAY
COLUMBIA 65201
MACKAMAN,BERT,JAMES, D
UNIVERSITY DF MISSOURI
M-752
COLUMBIA 65201
MALEK-AHMAOI,PARVIZ, CHP
201 MID-MISSOURI HEALTH CENTER
CDLUMBIA 65201
MALTBY,JAMES,D, R
N 207 MEOICAL SCIENCES BLDG
UMC
COLUMBIA 65201
MARCD,PHILIP,J, P
1015 COLLEGE PARK DR
COLUMBIA 65201

| | | |
|---|---|---|
| MARIENFELD,CARL,JOS, | 807 STADIUM<br>COLUMBIA 65201 | PH |
| MARKIVEE,CARROLL,R, | 807 STADIUM<br>COLUMBIA 65201 | NM |
| MC CORD,E,SCOTT, | UNIV MED CENTER DEPT ANES<br>COLUMBIA 65201 | AN |
| MC DAVID,ROBERT,E, | 203 W BROADWAY<br>COLUMBIA 65201 | OBG |
| MC ELROY,GLENN,L, | 3205 LANSING AVE<br>COLUMBIA 65201 | ORS |
| METZLER,MICHAEL,H, | UNIV OF MO MED CTR<br>COLUMBIA 65201 | GS |
| MEYER,JOHN,C, | 401 KEENE<br>COLUMBIA 65201 | PD |
| MEZOFF,JOHN,M, | UNIV OF MO MED CTR<br>COLUMBIA 65201 | UPH |
| MILLER,LE,ROY J, | 1502 E BROADWAY<br>COLUMBIA 65201 | GP |
| MILLIKAN,LARRY,EDWARD, | UNIVERSITY HOSP DEPT DERM<br>COLUMBIA 65201 | D |
| MITCHELL,FRANKLIN,LOUIS, | 2208 DANFORT CT<br>COLUMBIA 65201 | GS |
| MITCHELL,LYNN,DELANO, | 401 KEENE<br>COLUMBIA 65201 | IM |
| MONROE,CARROLL,DEAN, | 803 STADIUM RD<br>COLUMBIA 65201 | P |
| MONTIE,JOS,EMORY, | UNIV OF MO MED CTR<br>COLUMBIA 65201 | U |
| MOON,AGNES,HYUNGNAM, | RUSK REHABILITATION CENTER<br>COLUMBIA 65201 | PM |
| MORANVILLE,BENEDICT,A, | 1504 E BROADWAY<br>COLUMBIA 65201 | FP |
| MOSBY,LARRY,DEE, | 107 E BRANDON RD<br>COLUMBIA 65201 | PTH |
| MULLINS,MAURICE,FRANCIS, | 211 MESSIE RD<br>RICHMOND VA 23221 | OR |
| NAVARRO,MANUEL,IGNACIO, | U MO-COLUMBIA MED CTR DPT RAD<br>COLUMBIA 65201 | R |
| NICHOLS,WALTER,KIRT, | UNIV OF MO MED CTR DEPT GS<br>COLUMBIA 65201 | GS |
| NIEUWENHUIZEN,MAARTEN, | 3916 FAUROT DR<br>COLUMBIA 65201 | P |
| NOLPH,GEORGIA,J A BOWER, | 801 WESTPORT DRIVE<br>COLUMBIA 65201 | FP |
| NOLPH,KARL,DAVID, | DIV OF NEPHROLOGY<br>DEPT OF MED<br>UNIV OF MO MED CTR<br>COLUMBIA 65201 | IM |
| NORRIS,ALAN,D, | UNIVERSITY OF MO MED CTR<br>807 STADIUM RD<br>COLUMBIA 65201 | RHU |
| OESTREICH,ALAN,EMIL, | UNIV MO MED CTR-N-217<br>COLUMBIA 65201 | POR |
| ORTH,OLIVER,GERALD, | 11 S WILLIAMS ST<br>COLUMBIA 65201 | NS |
| OSKINS,PERRY,B, | PATHOLOGY DEPT<br>UMMC<br>COLUMBIA 65201 | PTH |
| OVERHOLSER,MILTON,D, | 807 STADIUM ROAD<br>COLUMBIA 65201 | DS |
| PARKER,BRENT,MERSHON, | DIRECTORS OFFICE<br>807 STADIUM<br>COLUMBIA 65201 | CD |
| PAYNE,DAVID,E, | 1901 RIDGEMONT<br>COLUMBIA 65201 | D |
| PAYNE,JOHN,W, | 3205 LANSING AVE<br>COLUMBIA 65201 | ORS |
| PEARMAN,CARL,COURTNEY, | STAR ROUTE<br>PLATO 65552 | OBG |
| PEREZ-MESA,CARLOS,MANUEL, | ELLIS FISCHEL CANCER HOSP<br>COLUMBIA 65201 | PTH |
| PERRY,MICHAEL,CLINTON, | 807 STADIUM RD<br>COLUMBIA 65201 | IM |
| PETERSON,CHAS,RAYMOND, | HOWARD A RUSK REHAB CENTER<br>ROOM 132<br>COLUMBIA 65201 | PM |
| PFEFER,LELAND,UDELL, | 1504 E BROADWAY<br>COLUMBIA 65201 | IM |
| PICKARD,CLARENCE,MOTT, | 113 W BROADWAY<br>COLUMBIA 65201 | IM |
| PICKENS,JAMES,MILTON, | UNIV OF MO MED CTR DEPT PD<br>COLUMBIA 65201 | PD |
| PINGELTON,WM,B, | 113 W BROADWAY<br>COLUMBIA 65201 | OBG |
| POLITTE,LENARD,LUTHER, | 401 KEENE ST<br>COLUMBIA 65201 | CD |
| PUCKETT,CHAS,LINWOOD, | UNIV OF MO MED CTR<br>M348 MED CTR 807 STADIUM RD<br>COLUMBIA 65201 | PS |
| PULLIAM,MORRIS,WADE, | DEPT NEURO SURGERY<br>807 STADIUM RD<br>COLUMBIA 65201 | NS |
| QUAYLE,WILLIAM,H, | 3205 LANSING AVE<br>COLUMBIA 65201 | OPH |
| RALL,KENNETH,LOEM, | 1121 DANFORTH DRIVE<br>COLUMBIA 65201 | R |
| REYNOLDS,JAMES,O, | 807 STADIUM<br>COLUMBIA 65201 | NO |
| RIDENHOUR,CLARENCE,E, | ROUTE 1 CEDAR GROVE<br>COLUMBIA 65201 | GS |
| RIKLI,ARTHUR,EUGENE, | 4003 FAUROT DR<br>COLUMBIA 65201 | GPM |
| RINK,RICHARD,ARLOS, | HARRY S TRUMAN MEM VETS HOSP<br>800 STADIUM RD<br>COLUMBIA 65201 | AN |
| RODGERS,ELRIE,P, | BOX 993<br>COLUMBIA 65201 | IM |
| ROGERS,WALLACE,A, | UNIV MO MED CTR DEPT PTH<br>COLUMBIA 65201 | PTH |
| ROSENHOLTZ,MITCHELL,JAY, | 103 LONGFELLOW LANE<br>COLUMBIA 65201 | OS |
| ROSS,GILBERT, | 807 STADUIM<br>COLUMBIA 65201 | U |
| ROYER,JERRY,ALAN, | 807 STADIUM<br>COLUMBIA 65201 | FP |
| RUSSELL,GARTH,S, | BOX D<br>COLUMBIA 65201 | ORS |
| SAAB,SALIM,BAHIG, | UNIV OF MO MED CTR<br>COLUMBIA 65201 | TS |
| SANDERS,HAROLD,LEROY, | 1502 E BROADWAY<br>COLUMBIA 65201 | OR |
| SANDOCK,KENNETH, | N217 MED-SCI<br>UNIV OF MISSOURI HOSP<br>COLUMBIA 65201 | NM |
| SCHEWE,ELMER,JOHN, | 3205 LANSING<br>COLUMBIA 65201 | GS |
| SEE,WM,BERNARD, | 1504 E BROADWAY<br>COLUMBIA 65201 | OBG |
| SHAHEEN,ELEANOR, | UNIV MO MED CTR-PED DPT N708<br>COLUMBIA 65201 | PD |
| SHAPERO,JAMES,A, | 909 UNIVERSITY<br>COLUMBIA 65201 | P |
| SHERMAN,DAVID, | 807 STADIUM<br>COLUMBIA 65201 | N |
| SIGHTS,WARREN,P, | 807 STADIUM<br>COLUMBIA 65201 | NS |
| SILVER,DONALD, | 807 STADIUM<br>COLUMBIA 65201 | CDS |
| SILVERS,ROBT,GENE, | 610 W STEWART RD<br>COLUMBIA 65201 | N |
| SIMONDS,JOHN,FRANCIS, | 807 STADIUM<br>COLUMBIA 65201 | CHP |
| SMITH,JASON,N, | 701 WEST BLVD S<br>COLUMBIA 65201 | IM |
| SMITH,JOE,ROBT, | 1504 E BROADWAY<br>COLUMBIA 65201 | OPH |
| SOHA,JOSEPH,J, | 510 ONOFRIO CT<br>COLUMBIA 65201 | R |
| SOMERS,JOHN,EDWARD, | 11 S WILLIAMS ST<br>COLUMBIA 65201 | N |
| SORKIN,MICHAEL,ISAAC, | TO 4-E 226<br>UNIVERSITY OF MO MED CTR<br>807 STADIUM RD<br>COLUMBIA 65201 | NEP |
| SOSEBEE,LEE,A, | 3205 LANSING AVE<br>COLUMBIA 65201 | ORS |
| SPURGEON,MILO,JAMES, | 404 EDGEWOOD<br>COLUMBIA 65201 | AN |
| STABENOW,DAVID,L, | UNIV OF MO MED CTR<br>COLUMBIA 65201 | O |
| STEPHENSON,HUGH,E, | UMIV OF MO SCHOOL MED<br>COLUMBIA 65201 | TS |
| STEWART,WELLINGTON,BUEL, | COL OF MED DEPT PATH<br>COLUMBIA 65201 | PTH |
| STOY,ROBT,P, | 201 W BROADWAY<br>COLUMBIA 65201 | GS |
| STRADFORD,H,TODD, | 1444 S EL CHAPARRAL AVE<br>COLUMBIA 65201 | ORS |
| TAYLOR,HENRY,M, | UNIV OF MO MED CTR<br>COLUMBIA 65201 | HEM |
| TEMPLER,JERRY,W, | 807 STADIUM<br>COLUMBIA 65201 | OTO |
| TERRY,BOYD,EARL, | UNIV OF MO HOSP DEPT SURG<br>COLUMBIA 65201 | GS |
| THOMAS,HORACE,EDWARD, | 1502 E BROADWAY<br>COLUMBIA 65201 | GS |
| THOMAS,JAMES,REGAN, | 3205 LANSING<br>COLUMBIA 65201 | OTO |
| THOMAS,ROBERT,MORGAN, | 3205 LANSING AVE AT KEENE<br>COLUMBIA 65201 | OTO |
| TINSLEY,JOHN,C, | 16 S 10TH ST<br>COLUMBIA 65201 | IM |
| TRUMBOWER,WM,DE VIPONT, | UNIV OF MO MED CTR DEPT OBG<br>COLUMBIA 65201 | OBG |
| TULLY,RICHARD,J, | 807 STADIUM RD<br>COLUMBIA 65201 | DR |
| VAN DERVOORT,ROBT,L, | 401 KEENE ST<br>COLUMBIA 65201 | PD |
| VAN STONE,JOHN,CHARLES, | TO 4-E<br>UNIV OF MO MED CTR<br>807 STADIUM<br>COLUMBIA 65201 | NEP |
| VOGEL,CURT,MILTON, | 3707 WOODRIDGE CT<br>COLUMBIA 65201 | GS |
| WAGGONER,CHAS,MACK, | 201 W BROADWAY<br>COLUMBIA 65201 | R |
| WAKERLIN,GEO,EARLE, | 2120 PACIFIC AVE<br>SAN FRANCISCO CA 94115 | |
| WALTERS,JOHN,H, | 1027 HICKORY HILL DR<br>COLUMBIA 65201 | IM |
| WALTERS,LAURA, | 11 S WILLIAM<br>COLUMBIA 65201 | O |
| WASHINGTON,EDWARD,LEE, | 303 TREMONT<br>HOPKINSVILLE KY 42240 | PD |
| WATSON,TREVOR,FRANKLIN, | 1504 E BROADWAY<br>COLUMBIA 65201 | OBG |
| WATTS,CLARK,CABOT, | 807 STADIUM<br>COLUMBIA 65201 | NS |
| WEISS,JAMES,M A, | UNIV OF MO MED CENTER<br>COLUMBIA 65201 | P |
| WERNER,HAROLD,VINCENT, | UNIV OF MO MEDICAL CENTER<br>COLUMBIA 65201 | IM |
| WHITE,JOS,MALLIE, | 111 JESSE HALL<br>COLUMBIA 65201 | AN |
| WHITTIER,FREDERICK,C, | RR 5<br>COUNTRYSHIRE ESTATES<br>COLUMBIA 65201 | NEP |
| WIGGINS,ROLAND,LEE, | 408 N GARTH ST<br>COLUMBIA 65201 | IM |

| | | |
|---|---|---|
| WILLIAMS,ANDREW,F, | OBG | 203 W BROAOWAY<br>COLUMBIA 65201 |
| WILSON,GEO,PATTERSON, | R | P O BOX 644<br>COLUMBIA 65201 |
| WILSON,JOHN,EOWARD, | OBG | 401 KEENE ST<br>COLUMBIA 65201 |
| WINOMILLER,MYRL,EUGENE, | GS | 1504 E BROAOWAY<br>COLUMBIA 65201 |
| WINNACKER,JOHN,L, | END | 467 VA HOSPITAL<br>COLUMBIA 65201 |
| WOOORUFF,CALVIN,W, | PO | 807 STAOIUM ROAO<br>COLUMBIA 65201 |
| YARBRO,JOHN,WILLIAMSON, | NO | 115 BUSINESS LOOP 70 W<br>COLUMBIA 65201 |
| YEAGER,HELEN,E, | PD | 807 STADIUM<br>COLUMBIA 65201 |
| YESUS,YOHANNES,W, | PTH | 807 STAOIUM RO<br>COLUMBIA 65201 |

## 030—BUCHANAN

| | | |
|---|---|---|
| ACUFF,R,PHILIP, | R | 702 JULE ST<br>ST JOSEPH 64501 |
| AHAO,ABOUL, | P | BOX 263 3400 FREOERICK<br>ST JOSEPH 64502 |
| AMES,WM,HOWARD, | IM | 902 EOMONO ST<br>ST JOSEPH 64501 |
| ANDRES,EOWARO,H, | GS | 902 EOMOND<br>ST JOSEPH 64502 |
| BALLARD,OEWEY,PHILIP, | IM | THOMPSON BRUMM KNEPPER CLINIC<br>ST JOSEPH 64502 |
| BARTULICA,NICHOLAS, | P | 3400 FREOERICK<br>ST JOSEPH 64502 |
| BECK,PAUL,MARTIN, | OPH | 409 KIRKPATRICK BLDG<br>ST JOSEPH 64501 |
| BEHELER,EOWARD,MILTON, | GS | 422 N 7TH ST<br>ST JOSEPH 64501 |
| BENNE,MICAHEL,GEORGE, | EM | EMERG OEPT<br>METHOOIST MEO CTR<br>SEVENTH TO NINTH ON FARAON<br>ST JOSEPH 64501 |
| BENSON,SCOTT,CONRAO, | GP | 2630 ASHLAND AVE<br>ST JOSEPH 64506 |
| BERNEY,FRANCIS,J, | OTO | 1225 N 10TH ST<br>ST JOSEPH 64501 |
| BRENNAN,RICAHRD,JAMES, | ORS | 1335 VILLAGE OR<br>ST JOSEPH 64506 |
| BRISTOW,ROBT,B, | U | 416 N 7TH<br>ST JOSEPH 64501 |
| BROWN,MERLIN,OEAN, | FP | 3306 MITCHELL AVE<br>ST JOSEPH 64507 |
| BRYANT,SYDNEY,LEE, | IM | 902 EDMONO ST<br>ST JOSEPH 64502 |
| BUTLER,ELZA,FARRELL, | OM | 902 EDMOND ST<br>ST JOSEPH 64502 |
| CALLMAN,GEORGE, | P | STATE HOSP NO 2<br>ST JOSEPH 64502 |
| CARPENTER,GEO,TYSON, | IM | 902 EDMOND ST<br>ST JOSEPH 64502 |
| CERZA,ROBERT,FRANCIS, | AN | 416 N 7TH<br>ST JOSEPH 64501 |
| CHALLENER,WM,A, | IM | 902 EOMOND ST<br>ST JOSEPH 64502 |
| CHRIST,MARTIN,H, | A | 1402 FARAON ST<br>ST JOSEPH 64501 |
| CORDER,ROBT,LEE, | OBG | 510 FRANCIS<br>ST JOSEPH 64501 |
| COX,JOHN,PHILLIP, | P | 902 EOMOND ST<br>ST JOSEPH 64502 |
| CRAIG,OWEN,WM OONALO, | GP | KIRKPATRICK BLDG<br>ST JOSEPH 64501 |
| CRAIG,RICHARD,OWEN, | GS | 510 FRANCIS PL<br>ST JOSEPH 64501 |
| DAY,ROMNEY,M, | U | 1410 HIGHLANO<br>MC ALLEN TX 78501 |
| OECANINI,JESUS,MARIO, | P | P O BOX 11<br>ST JOSEPH 64502 |
| DU MONT,CLEMENT,C, | GP | 1905 FRANCIS ST<br>ST JOSEPH 64501 |
| OYER,GARY,ALDEN, | O | 1302 FARAON ST<br>ST JOSEPH 64501 |
| ESCOBAR,NELSON,G, | NS | 602 JULES ST<br>ST JOSEPH 64501 |
| FERGUSON,LUTHER,JOHN, | OS | 2907 FRANCIS<br>ST JOSEPH 64501 |
| FERNANDEZ,FERNANDO, | ENO | METHODIST MEDICAL CENTER<br>SEVENTH TO NINTH ON FARAON<br>ST JOSEPH 64501 |
| FISCHER,MARTIN,JOS, | TS | 902 EDMOND ST<br>ST JOSEPH 64502 |
| FISHER,JOS,LEE, | R | 7TH AND JULE<br>ST JOSEPH 64501 |
| FORMAN,GEO,WM, | P | 2412 ASHLAND<br>ST JOSEPH 64506 |
| FOX,GERALD,EARL, | PTH | METHOOIST HOSP DEPT PATH<br>ST JOSEPH 64501 |
| FUSON,LEVI,HARRISON, | IM | RT 3<br>ST JOSEPH 64506 |
| GARRISON,DAVIO,LEE, | OBG | 902 EDMOND ST<br>ST JOSEPH 64502 |
| GHOSH,RANENORA,B, | P | 3400 FREOERICK<br>ST JOSEPH 64501 |
| GONORING,WILLIAM,H, | ORS | 1335 VILLAGE DR<br>ST JOSEPH 64506 |
| GRANT,CLAUOE,SKAGGS, | GP | 2726 SUBLETTE WAY<br>ST JOSEPH 64506 |
| GRIMES,MANNING,ELMORE, | GP | KIRKPATRICK BLOG<br>ST JOSEPH 64501 |
| GUNTER,JOE,S, | U | 902 EOMOND<br>ST JOSEPH 64502 |
| HANDLER,ERIC, | GYN | KIRPATRICK BLDG<br>ST JOSEPH 64501 |
| HARNER,CASPER,G, | D | 902 EOMONO ST<br>ST JOSEPH 64502 |
| HAYES,PAUL,WESLEY, | P | 610 N NOYES BLVD<br>ST JOSEPH 64506 |
| HERMAN,ALLEN,ISADORE, | IM | 510 FRANCIS ST STE 314<br>ST JOSEPH 64501 |
| HERMANN,CHARLES,GORDON, | PTH | 925 POWELL<br>ST JOSEPH HOSP<br>ST JOSEPH 64501 |
| HOWDEN,THOS,LAWRENCE, | IM | 2723 FRANCIS ST<br>ST JOSEPH 64501 |
| HUGHES,JUDSON,MARTIN, | OM | 3306 JENNIFER LANE<br>ST JOSEPH 64506 |
| HUNT,PATRICK,THOMAS, | R | 702 JULES ST<br>ST JOSEPH 64501 |
| IDE,LUCIEN,WATERMAN, | IM | 902 EDMOND AVE<br>ST JOSEPH 64502 |
| INOCENCIO,EDDIE,C, | OTO | 902 EDMOND ST<br>ST JOSEPH 64502 |
| JIMENEZ,JOSE, | P | BOX 263<br>ST JOSEPH 64502 |
| KLINE,CARLYN,MOLSTAD, | GP | 17 STONECREST<br>ST JOSEPH 64506 |
| KLINE,EDMUND,WILKING, | OBG | 510 FRANCIS<br>ST JOSEPH 64501 |
| KNEPPER,PAUL,ALBERT, | GS | 2002 ASHLAND AVE<br>ST JOSEPH 64506 |
| KULOWSKI,JACOB, | ORS | 5106 STONECREST TERR<br>ST JOSEPH 64506 |
| LEE,CARLETON,H, | A | 4104 ST JOSEPH AVE<br>ST JOSEPH 64505 |
| LEHMAN,PHILIP,C, | ORS | 1331 VILLAGE DR<br>ST JOSEPH 64506 |
| MAGINN,RICHARO,LEO, | GP | 702 JULE ST<br>ST JOSEPH 64501 |
| MARSTON,FREDERICK,J, | OBG | 902 EDMOND ST<br>ST JOSEPH 64502 |
| MARTIN,JOHN,NEAL, | U | 416 N 7TH ST<br>ST JOSEPH 64501 |
| MC DANIEL,JOHN,REOMONO, | GS | 902 EDMOND ST<br>ST JOSEPH 64502 |
| MC OONALO,WALLACE, | IM | 29 RIDGELANO<br>ST JOSEPH 64505 |
| MC DONALO,WILBUR,P, | GS | 301 N 8TH ST<br>ST JOSEPH 64501 |
| MC MILLEN,JAMES,JOSEPH, | IM | 900 N BELT<br>ST JOSEPH 64506 |
| MERIWETHER,OON,R, | AN | 902 EOMONO ST<br>ST JOSEPH 64502 |
| MINTON,ROBT,SLATER, | OPH | 403 MIOOLETON<br>ST JOSEPH 64505 |
| MOEN,BERWYN,HAROLD, | OTO | 902 EOMOND ST<br>ST JOSEPH 64502 |
| MONTA,MANDE,OELFIN, | PTH | METHOOIST MEO CTR<br>ST JOSEPH 64501 |
| MORSE,MARVIN,WALTER, | PTH | 2702 FARON ST<br>ST JOSEPH 64501 |
| MOTHERSHEAD,JOHN,L, | GP | 2603 FREDERICK AVE<br>ST JOSEPH 64506 |
| MUENCH,ALBERT,HARRY, | PH | 412 N 25TH<br>ST JOSEPH 64501 |
| MULLICAN,CHAS,NEWTON, | IM | 510 FRANCIS ST<br>SUITE 324<br>ST JOSEPH 64501 |
| MURPHY,JAMES,A, | OPH | 1321 VILLAGE OR<br>ST JOSEPH 64501 |
| NESS,CARL,K, | N | 8 LINOENWOOD LANE<br>ST JOSEPH 64505 |
| O'BRIEN,LIAM, | P | STATE HOSP<br>ST JOSEPH 64502 |
| O'CONNOR,WM,BENEOICT, | D | 510 FRANCIS ST<br>ST JOSEPH 64501 |
| PACULDO,NORA,N RAZON, | CHP | P O BOX 96<br>ST JOSEPH 64506 |
| PARTAMIAN,KRIKOR, | U | 9TH & EDMOND<br>ST JOSEPH 64502 |
| PAULSON,GORDON,S, | IM | 1302 FARAON ST<br>ST JOSEPH 64506 |
| PETERSEN,HAROLO,EOWARD, | PO | 2902 FREOERICK AVE<br>ST JOSEPH 64506 |
| PFEFFER,ROBT,I, | OBG | 1915 N 29TH ST<br>ST JOSEPH 64506 |
| PIFER,LAWRENCE,H, | GP | 925 5TH AVE<br>ST JOSEPH 64505 |
| POTTER,CARYL,A, | IM | 324 PIONEER BLDG<br>ST JOSEPH 64501 |
| PROKOP,JOS,ROBT, | PO | 29 STONECREST<br>ST JOSEPH 64506 |
| RAPHEL,JOSE, | GP | 1111 N 49TH TERR<br>ST JOSEPH 64506 |
| REDMOND,WM,STOREY, | GP | CORBY BLDG<br>ST JOSEPH 64501 |
| ROBERTS,PHYLLIS,L GRANT, | GP | 2607 CORNELL AVE<br>ST JOSEPH 64506 |
| ROGERS,JOHN,T, | GP | 2502 ASHLAND AVE<br>ST JOSEPH 64506 |
| ROSENTHAL,IRWIN,I, | GP | ST JOSEPH STATE HOSP<br>BOX 263<br>ST JOSEPH 64502 |
| ROST,WM,BENEDICT, | GP | 2221 NW EXTENSION BLVD<br>ST JOSEPH 64506 |
| RYAN,JOHN,HAROLD, | GS | 2901 LOVER LN<br>ST JOSEPH 64506 |
| SENNE,HERBERT,CARL, | IM | 223 N 7TH ST<br>ST JOSEPH 64501 |

SHAH,NARENDRA, AN
THOMPSON BRUMM & KNEPPER CLINC
902 EDMOND ST
ST JOSEPH 64502
SHEVLIN,CHAS,F, PD
902 EDMOND ST
ST JOSEPH 64502
SILLIMAN,YORK,EUGENE, PTH
2715 FRANCIS
ST JOSEPH 64501
SKLENAR,DONALD,EMMETT, UP
228 ILLINOIS
ST JOSEPH 64504
SPURGAT,ROBERT,M, PUD
510 FRANCIS ST
ST JOSEPH 64501
STACY,WINTON,TELFAIR, FP
1215 N 24TH ST
ST JOSEPH 64506
STALLARD,DONALD,JULIAN, IM
902 EDMOND ST
ST JOSEPH 64502
STEVENS,EDWARD,MILLER, DR
702 JULE
ST JOSEPH 64504
STUBER,ROBT,RONALD, CD
900 N BELT HWY
ST JOSEPH 64506
THOMPSON,FREDERICK,U, PD
2714 ASHLAND AVE
ST JOSEPH 64506
TOBIN,ROBT,FRANCIS, UPH
1321 VILLAGE DR
ST JOSEPH 64506
VALERA,SALVADOR,S, P
4110 W HAVERILL DR
ST JOSEPH 64506
WADLOW,ERNEST,EDWARD, OBU
510 FRANCIS ST
ST JOSEPH 64501
WAGUONER,SHARON,E, UP
301 ILLINOIS AVE
ST JOSEPH 64504
WEED,RANDAL, R
702 JULES ST
ST JOSEPH 64501
WEINAND,ERNEST,EDWARD, GS
902 EDMOND ST
ST JOSEPH 64502
WHITSELL,ORA,EARL, OPH
802 N 23RD ST
ST JOSEPH 64506
WILLMAN,CHAS,RHEINOLD, US
2216 HIGHLY
ST JOSEPH 64506
WILLUMSEN,HENRY,C, GYN
902 EDMOND ST
ST JOSEPH 64502
WINDSOR,DAVID,GEU, CHP
RR #1
RUSENDALE 64463
WOLANSKI,EUGENE,G, IM
902 EDMOND ST
ST JOSEPH 64502
YOUNG,THOS,JAMES, OPH
1321 VILLAGE DR
ST JOSEPH 64506

## 034—BUTLER-WAYNE-RIPLEY-CARTER

ANDRUS,UON,L, GS
VA HOSPITAL
POPLAR BLUFF 63901
ARAOZ,CARLUS,A, PTH
MED LAB
1901 N WESTWUOD
POPLAR BLUFF 63901
BARBOUR,MARVIN,R, FP
KNEIBERT CLINIC
POPLAR BLUFF 63901
BIUUS,FREU,JUS, GP
608 N MAIN ST
POPLAR BLUFF 63901
BROOKRESON,ALTON,DAVIS, FP
#1 HONEYSUCKLE LANE
POPLAR BLUFF 63901
CALDWELL,FRED, FF
KNEIBERT CLINIC
POPLAR BLUFF 63901
CAMP,RICHARU,VERNON, FP
111 ASH ST
CAMPBELL 63933
CANLAS,EMILIU,MUNIOZ, R
P O BOX 1009
POPLAR BLUFF 63901
CARLSON,ELMER,CARL, UBG
623 PINE ST
POPLAR BLUFF 63901
CHAND,NAZAR, PO
666 LESTER
POPLAR BLUFF 63901
CHRISTY,JOHN,PAUL, GS
666 LESTER ST
POPLAR BLUFF 63901
CONGER,WILLIAM,REECE, FP
KNEIBERT CLINIC
LESTER STREET
POPLAR BLUFF 63901
OEMEO,ROBERT,RUDOLPH, OPH
666 LESTER
P O BOX 220
POPLAR BLUFF 63901
DUNCAN,ROLIN,BERNELL, FP
666 LESTER
POPLAR BLUFF 63901
ENUELHARDT,ROBT,C, AN
KNEIBERT CLINIC
POPLAR BLUFF 63901
FERUUSON,JOHN,JAMES, D
666 LESTER ST
POPLAR BLUFF 63901
FRASER,RICHARD,ANDREW, IM
621 PINE ST
POPLAR BLUFF 63901
GERNSTETTER,S,L, ORS
P O BOX 337
POPLAR BLUFF 63901
HANSBROUGH,EUUENE,TICE, US
1502 LURKYN
POPLAR BLUFF 63901
HARWELL,JAMES,LESTER, US
2149 SUNSHINE
COLUMBUS APT 204C
SPRINGFIELD 65804
HECKER,JOS,EDWIN, FP
KNEIBERT CLINIC
POPLAR BLUFF 63901
HENRICKSON,W,E, FP
HENRICKSON CLINIC
POPLAR BLUFF 63901
HOJA,WITOLD,ALEXANDER, OBU
1111 MANSION MALL DR
POPLAR BLUFF 63901
HUNT,JOHN,LOUIS, UP
WILCOX RD
BOX 56
POPLAR BLUFF 63901
KNEIBERT,FRED,LOUIS, UP
666 LESTER
P O BOX 220
POPLAR BLUFF 63901
KWOUN,SOUNU, US
217 OAK STREET
POPLAR BLUFF 63901
LAATSCH,ROBT,HENRY, FP
1333 MEADOW LN
POPLAR BLUFF 63901
LADYMAN,GEO,HENRY, R
623 PINE
POPLAR BLUFF 63901
LASETER,MICHAEL, IM
KNEIBERT CLINIC
POPLAR BLUFF 63901
LEROUX,GENE,HOOVER, GP
204 SUMMIT
DONIPHAN 63935
LESTMANN,HENRY,E, FP
202 PLUM ST
DONIPHAN 63935
LOUUHEAD,JUHN,ROBT, OTO
1201 LURLYN AVE
POPLAR BLUFF 63901
MACAULEY,BERNARD,JOS, DPH
P O BOX 238
DONIPHAN 63935
MADUURI,ARUNA,D, OBG
666 LESTER
POPLAR BLUFF 63901
MADDURI,SIVAPRASAD,U, U
KNEIBERT CLINIC
666 LESTER
POPLAR BLUFF 63901
MARKEL,ARTHUR,UEAN, FP
KNEIBERT CLINIC
POPLAR BLUFF 63901
MATHEY,JOSEPH,W, FP
330 N SECOND
POPLAR BLUFF 63901
MAY,ALBERT,L, GS
330 N 2ND ST
POPLAR BLUFF 63901
MC LANE,JERRY,FRANKLIN, OBG
330 N 2ND STREET
POPLAR BLUFF 63901
MILLER,DAVID,V, IM
KNEIBERT CLINIC
POPLAR BLUFF 63901
PARKER,ARTHUR,C, PO
KNEIBERT CLINIC
POPLAR BLUFF 63901
PLUNKETT,LITTLETON,JAMES, GP
330 N 2ND STREET
POPLAR BLUFF 63901
RAMIREZ,RICARDO,MEZA, PTH
KNEIBERT CLINIC
POPLAR BLUFF 63901
REDDY,ABBIAH,NARAYANA, U
666 LESTER ST
POPLAR BLUFF 63901
REDUY,SARVOTHAM,KATANUUR, US
666 LESTER ST
POPLAR BLUFF 63901
ROBERTSON,WM,DIXON, GP
MC PHEETERS CLINIC
POPLAR BLUFF 63901
RUFF,T,EUGENE, U
1411 ROSEDALE
POPLAR BLUFF 63901
SPARUER,CHARLES,F, GS
HENRICKSON CLINIC BLDG
217 OAK ST
POPLAR BLUFF 63901
STUBBLEFIELD,CALVIN,F, IM
2547 HOLLYHOCK
GERMANTOWN TN 38138
SUVAN,R, PD
107 OAK STREET
POPLAR BLUFF 63901
TILL,BENNIE,NORMAN, FP
666 LESTER ST
POPLAR BLUFF 63901
TINSLEY,AUSTIN,RENO, FF
2ND AND OAK STREET
POPLAR BLUFF 63901
TRAXEL,WM,LOUIS, OPH
623 PINE BLVD
POPLAR BLUFF 63901
TUMA,ARTHUR,T, NM
215 OAK STREET
POPLAR BLUFF 63901
TURNER,JAMES,HERBERT, P
215 OAK ST
POPLAR BLUFF 63901
TURNER,KIRBY,LYNN, FP
623 PINE
POPLAR BLUFF 63901
TURNER,WM,FESTUS, UP
1720 BIU BEND
POPLAR BLUFF 63901
VARMA,DEVENDRA,KUMAR, IM
2506 N MAIN
POPLAR BLUFF 63901
WHITE,BARRY,BARTUN, GP
330 N 2ND
POPLAR BLUFF 63901
WOOD,THOS,OWEN, FP
623 PINE ST
POPLAR BLUFF 63901

## 038—CALLAWAY

BROWN,JOHN,JEFFERSON, US
1304 VINE ST
FULTON 65251
BROWN,KATHERINE,SHIRLEY, AN
1304 VINE ST
FULTON 65251
DOMKE,HERBERT,R, PH
221 W HIGH ST
JEFFERSON CITY 65101
DURST,HENRY, UP
610 COURT ST
FULTON 65251
GISH,E,RUTLEUUE, GF
5 E 5TH ST
FULTON 65251
UROCE,UEO,UAVID, FP
820 JEFFERSON ST
FULTON 65251
HILL,JAMES,ELDON, GF
820 JEFFERSON ST
FULTON 65251
JACKSON,VERNON,B, OPH
STATE HOSPITAL #1
FULTON 65251
OSBOURN,RICHARD,ALTON, FP
8208 JEFFERSON
FULTON 65251
PARULEKAR,DILIP,U, US
101 E 6TH
FULTON 65251
PETERSON,DONALD,B, F
1 COUNTRY CLUB DR
FULTON 65251
RITTERBUSCH,JAMES,K, GS
STATE HOSP #1
FULTON 65251
SYUOW,HENRY,ANTHUNY, FP
10 W 6TH ST
FULTON 65251
WILLIAMS,PAUL,ANTHONY, FP
820 JEFFERSON
FULTON 65251
WOOD,GEO,FRANK, UP
1700 PLAZA DR
FULTON 65251

## 042—CAPE GIRARDEAU

ADAMS,RILEY,R, AN
30 DOCTORS PARK
CAPE GIRARDEAU 63701
*ASHER,KENNETT,
BROADRIDUE ROAD
JACKSON 63755
ASHLEY,HUUH,V, UP
425 FRANKLIN ST
CAPE GIRARDEAU 63701
BAHN,CHAS,F, GE
14 DOCTOR'S PARK
CAPE GIRARDEAU 63701

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* Doctor of Osteopathy

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|---|---|
| BARNES,SETH,S,<br>610 NORTHVIEW DR<br>CAPE GIRARDEAU 63701 | D |
| BLANKENSHIP,DALE,M,<br>12 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GP |
| BOWMAN,W,KIRK,<br>14 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | CD |
| BURFORD,EDWIN,K,<br>2424 TERRY HILL<br>CAPE GIRARDEAU 63701 | FP |
| CAMPBELL,EDWARD,O,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | CRS |
| CHAPMAN,JEAN,A,<br>14 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | IM |
| COCHRAN,J,R,<br>37 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GP |
| COULSON,FOREST,H,<br>36 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | IM |
| COZEAN,CHARLES,H,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | OPH |
| CROWE,JOHN,T,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | FP |
| DINKENS,JAMES,A,<br>23 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | PD |
| DOWNEY,JON,P,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | FP |
| DZUR,JAMES,R,<br>14 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | IM |
| EDWARDS,DONALD,E,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | IM |
| ELLER,GORDON,W,<br>1912 BROADWAY<br>CAPE GIRARDEAU 63701 | ORS |
| ELROD,DENNIS,B,<br>211 N SPRIGG ST<br>CAPE GIRARDEAU 63701 | GYN |
| HARTMANN,HELMUT,<br>FROHNA 63748 | GP |
| HERBERT,CHAS,T,<br>624 GOOD HOPE ST<br>CAPE GIRARDEAU 63701 | PD |
| HOLCOMB,JOHN,K,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | FP |
| HONAAS,TRYGVE,O,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | GE |
| HORN,PAUL,C,<br>1909 HUNTINGTON<br>CAPE GIRARDEAU 63701 | CLP |
| HUNT,ROBERT,S,<br>10 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GS |
| JAEGER,JOS,N,<br>STATE HWY D<br>JACKSON 63755 | GP |
| JOHNSON,E,D,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | R |
| JOHNSON,EARL,W,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | R |
| JONES,DAVID,N,<br>BOX 127<br>CAPE GIRARDEAU 63701 | GP |
| JUNG,CHRISTOPHER,H,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | OTO |
| JUNG,J,MARSHALL,<br>21 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | OPH |
| KAMATH,K P,S,<br>1511 BRIARCLIFF DR<br>CAPE GIRARDEAU 63701 | P |
| KASTEN,MELVIN,C,<br>10 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GS |
| KEIM,J,H,<br>1845 WOODLAWN<br>CAPE GIRARDEAU 63701 | IM |
| KIM,WAYNE,YONG,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | P |
| KINDER,JAMES,A,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | PD |
| KINDER,JERRY,L,<br>10 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GS |
| KOLDYS,KENNETH,W,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | D |
| KRATZ,PAUL,E,<br>2560 GORDONVILLE RD<br>CAPE GIRARDEAU 63701 | OBG |
| LOVINGGOOD,THOS,A,<br>6-1 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | PTH |
| MAGALETTA,GEO,E,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | OBG |
| MANGUNTA,VIJAYA,K,<br>BOX 534K ROUTE 2<br>CAPE GIRARDEAU 63701 | P |
| MC DONALD,EUGENE,F,<br>930 JACKSON TRAIL<br>JACKSON 63755 | GP |
| MC GINTY,CHAS,P,<br>10 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GS |
| OEHLER,WILLIAM,F,<br>213 N SPRIGG ST<br>CAPE GIRARDEAU 63701 | GP |
| OTTO,THOMAS,G,<br>1912 BROADWAY<br>CAPE GIRARDEAU 63701 | ORS |
| PALEN,JAMES,E,<br>15 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | FP |
| PARSONS,D,L,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | FP |
| RAPP,HAROLD,B,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | R |
| RAWLINS,FRED,E,<br>1912 BROADWAY<br>CAPE GIRARDEAU 63701 | OBG |
| RIDINGS,G,RAY,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | TR |
| RIDINGS,HAROLD,D,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | IM |
| RINGER,CARL,NELSON,<br>2022 ALLEN DR<br>CAPE GIRARDEAU 63701 | OPH |
| RITTER,C,JOHN,<br>14 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | IM |
| RITTER,CARL,F,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | R |
| RITTER,RAY,A,<br>1912 BROADWAY<br>CAPE GIRARDEAU 63701 | ORS |
| RITTER,RAYMOND,A,<br>2542 ALLENDALE DR<br>CAPE GIRARDEAU 63701 | GS |
| ROBERTS,PERRY,T,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | OTO |
| SCHARPHORN,JAMES,<br>P O BOX 444<br>CAPE GIRARDEAU 63701 | AN |
| SEABAUGH,L,R,<br>19 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | U |
| SEABAUGH,WM,D L,<br>24 N SPRIGG ST<br>CAPE GIRARDEAU 63701 | GS |
| SHOSS,MILTON,<br>937 BROADWAY<br>CAPE GIRARDEAU 63701 | R |
| SIDES,STANLEY,D,<br>14 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | IM |
| SPARKMAN,THOMAS,C,<br>15 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GP |
| SPENCE,PAUL,A,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | GP |
| TALBERT,CLIFFORD,R,<br>14 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | CD |
| TERRY,JAMES,W,<br>18 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | U |
| TIFFANY,DELBERT,ESSARY,<br>2716 OAKSHIRE CIRCLE<br>CAPE GIRARDEAU 63701 | IM |
| TYGETT,JOS,N,<br>17 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | OBG |
| WHITTEN,J,STEPHEN,<br>35 DOCTORS PARK<br>CAPE GIRARDEAU 63701 | OBG |
| WILSON,CHAS,F,<br>714 BROADWAY<br>CAPE GIRARDEAU 63701 | IM |
| WOLFF,PAUL,G,<br>1819 BROADWAY<br>CAPE GIRARDEAU 63701 | OPH |

## 046—CHARITON-MACON-MONROE-RANDOLPH

| | |
|---|---|
| AGUILERA,TRINIDAD,J A,<br>301 GRAND AVE<br>MOBERLY MEDICAL CLINIC<br>MOBERLY 65270 | GS |
| BAKER,JOSEPHINE,DAVIS,<br>614 FISK ST<br>MOBERLY 65270 | AN |
| BARNETT,FLOYD,A,<br>111 E MONROE ST<br>PARIS 65275 | GP |
| BAUTISTA,ROGELIO,LLEGO,<br>324 CIRCLE DR<br>MOBERLY 65270 | GS |
| CAMPBELL,JAMES,E,<br>1101 JACKSON ST<br>MACON 63552 | GP |
| CHUTE,WM,DEWARD,<br>346 WOODLAND AVE<br>MOBERLY 65270 | PD |
| COHRS,CLARENCE,CHRIS,<br>423 E LOGAN<br>MOBERLY 65270 | A |
| COLLINS,GRETCHEN,DORRIS,<br>605 N RUTHERFORD ST<br>MACON 63552 | GP |
| DREYER,PHILIP,VERNON,<br>208 SHORT ST<br>HUNTSVILLE 65259 | GP |
| EGGLESTON,DONALD,EDWIN,<br>410 N RUTHERFORD<br>MACON 63552 | OPH |
| FLEMING,JACOB,WM,<br>346 WOODLAND AVE<br>MOBERLY 65270 | IM |
| FLEMING,THOS,SIMPSON,<br>517 FORT ST<br>MOBERLY 65270 | CD |
| HARMS,FLORIAN,LOUIS,<br>508 E 4TH ST<br>SALISBURY 65281 | GP |
| HORI,JUSE,MIGUEL,<br>DAVIS MEMORIAL HOSP<br>BOX 1484<br>ELKINS WV 26241 | PTH |
| HUBER,LASLEY,EARL,<br>107 BRINKERHOFF<br>MOBERLY 65270 | GP |
| HUDSON,GIP,BAILEY,<br>346 WOODLAWN AVE<br>MOBERLY 65270 | GP |
| LEE,SOOK-LA,<br>309 N ROLLINS<br>MACON 63552 | AN |
| LIN,C,H,<br>346 WOODLAND AVE<br>MOBERLY 65270 | OBG |
| LIN,EI,SHUN,<br>346 WOODLAND<br>MOBERLY 65270 | AN |
| LIN,H,T,<br>346 WOODLAND AVE<br>MOBERLY 65270 | IM |
| MICIANO,TAAY,RUEL,<br>925 S 4TH ST<br>MOBERLY 65270 | GP |
| MILLER,D,HERBERT,<br>8555 S LEWIS<br>APT 201<br>TULSA OK 74136 | P |
| SHIN,DONG-SOO,<br>309 N ROLLINS<br>MACON 63552 | GS |
| STREETOR,RODERICK,DHU,<br>245 UNION BLVD<br>ST LOUIS 63108 | OS |
| STUART,DANL,DE WITT,<br>103 E VINE<br>BRUNSWICK 65236 | GP |
| TOMPSON,ROBT,VAUGHN,<br>423 E LOGAN<br>MOBERLY 65270 | GS |

## 050—CLAY

| | |
|---|---|
| ADAMS,HOWARD,DWIGHT,<br>WESTOWNE II<br>LIBERTY 64068 | GP |
| ALBANI,FRANK,JOSEPH,<br>1340 CAMELOT<br>LIBERTY 64068 | U |
| ALLAIN,JAMES,J,<br>2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | OPH |
| ALLAN,JAMES,RAY,<br>FAIRFIELD BAY MED CTR<br>FAIRFIELD BAY AR 72088 | GP |
| ALLEN,LOUIS,ANDERSON,<br>2800 HOSPITAL DR<br>KANSAS CITY 64116 | PTH |
| ANDERSON,ROBERT,<br>11500 AMBASSADOR DR<br>KANSAS CITY 64195 | GP |
| ANDREWS,BERNEIL,W,<br>2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | U |
| ARMSTRONG,JAY,HOWARD,<br>4812 BLACK SWAN DR<br>SHAWNEE MISSION KS 66216 | R |
| ARST,HERBERT,EUGENE,<br>408 E 68TH ST N<br>KANSAS CITY 64118 | IM |

| | | |
|---|---|---|
| BALHUIZEN,JOHN, | 5601 N ANTIOCH RD<br>KANSAS CITY 64119 | PUD |
| BATES,GEO,COMER, | 2700 HOSPITAL DR STE 530<br>NORTH KANSAS CITY 64116 | CD |
| BEAMON,RICHARD,FREDERICK, | SPELLMAN MEMORIAL HOSP<br>SMITHVILLE 64089 | EM |
| BENSON,LARRY,EDWARD, | 2700 HOSPITAL DR STE 240<br>NORTH KANSAS CITY 64116 | IM |
| BOONE,DANL,CARRINGTON, | 5600 N GRAND AVE<br>KANSAS CITY 64116 | UM |
| BOWLES,RICHARD,P, | 114 N WATER ST<br>LIBERTY 64068 | FP |
| BOWNIK,THEODORE,BRYAN, | 2700 HOSPITAL DR<br>SUITE 530<br>KANSAS CITY 64116 | IM |
| BOWSER,ROBERT,L, | 2601 KENDALLWOOD PKWY<br>GLADSTONE 64116 | AN |
| BRAHMACUPTA,NANTHANA, | 107 SPRING ST<br>EXCELSIOR SPRINGS 64024 | PD |
| BRIZIO-MOLTENI,LOREDANA, | 2664 SHERIDAN RD<br>EVANSTON IL 60201 | PS |
| BURK,EMMETT,KAY, | WESTOWNE III<br>LIBERTY 64068 | IM |
| BURROUGHS,NATHAN,O, | 2700 HOSPITAL DRIVE<br>NORTH KANSAS CITY 64116 | PS |
| CALHOUN,TERRY,L, | 5414 N HIGHLAND<br>KANSAS CITY 64118 | IM |
| CASTILLO,MICHAEL,EDWARD, | WESTOWNE V SUITE 501<br>LIBERTY 64068 | OPH |
| CHASTAIN,CHAS,WM, | 2800 HOSPITAL DR<br>FAMILY PRACTICE CTR<br>NORTH KANSAS CITY 64116 | FP |
| CHATKUPT,SUTHON, | 1205 N JESSE JAMES RD<br>EXCELSIOR SPRINGS 64024 | GS |
| CHILES,DAVID,R, | 620 COMMERCIAL AVE<br>SMITHVILLE 64089 | GP |
| COOK,JERRY,WM, | 7010 N CHERRY<br>KANSAS CITY 64118 | OPH |
| COOPER,BARRY,ROBT, | 2800 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | OR |
| COOPER,GARY,O, | SUITE 100 WESTOWNE III<br>LIBERTY 64068 | GE |
| CSAKI,BELA, | WESTOWNE IV SUITE 205<br>LIBERTY 64068 | |
| CURNOW,RICHARD,BLAIR, | WESTOWNE OFFICES<br>LIBERTY 64068 | ORS |
| DEL MURO,FRANCISCO, | 5601 ANTIOCH RD STE 8<br>KANSAS CITY 64119 | GP |
| DELIGEORGES,JOHN, | 7010 N CHERRY<br>KANSAS CITY 64118 | OPH |
| DENTON,ROBT,EUGENE, | SMITHVILLE CLINIC BOX E-2<br>SMITHVILLE 64089 | GS |
| DERNONCOURT,JOHN,E, | SMITHVILLE CLINIC<br>SMITHVILLE 64089 | GP |
| DEVINE,MARK,WM, | 2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | OTO |
| DOLAN,CHARLES,TERRENCE, | 2800 HOSPITAL DR<br>KANSAS CITY 64116 | PTH |
| DUNHAM,ROBT,HOWARD, | 6022 ANTIOCH RD<br>KANSAS CITY 64119 | GP |
| DY-RAGOS,RAMON,REYES, | 10106 NW 74TH ST<br>KANSAS CITY 64152 | NS |
| EDWARDS,THEODORE,F, | 2029 BURLINGTON AVE<br>NORTH KANSAS CITY 64116 | PD |
| FAKHOURY,DONALD,ADLY, | 4030 N OAK ST TRAFFICWAY<br>KANSAS CITY 64116 | GP |
| FISCHER,EDWARD,H, | 2929 BALTIMORE<br>KANSAS CITY 64108 | CD |
| FISCHER,JOSE,M, | 2900 HOSPITAL DRIVE<br>KANSAS CITY 64116 | P |
| FLANDERS,VIRGIL,E, | 2022 W 91ST ST<br>LEAWOOD KS 66206 | FP |
| FOTOPOULOS,CHRIS,K, | R R 4 BOX 67A<br>LAMAR 64759 | GS |
| FOWLER,I,CHAS, | 700 N E BARNES<br>KANSAS CITY 64118 | DM |
| GALBOL,HARLEY,INGVAR R, | 522 ELMS BLVD<br>EXCELSIOR SPRINGS 64024 | GP |
| GAUER,ROBT,J, | 5601 ANTIOCH RD<br>KANSAS CITY 64119 | PD |
| HAGAN,JOHN,CHAS, | 2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | OPH |
| HALEY,TED,MARKHAM, | 405 E 19TH AVE<br>KANSAS CITY 64116 | GP |
| HAYES,LAWRENCE,LOUIS, | 8630 N OAK ST TRFWY<br>KANSAS CITY 64155 | GP |
| HEDGES,RICHARD,CROMWELL, | 2025 SWIFT<br>NORTH KANSAS CITY 64116 | DM |
| HENDREN,THOS,HINES, | WESTOWNE III STE 101<br>LIBERTY 64068 | GS |
| HENRY,JOS,ERIC, | 2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | IM |
| HOOGE,ROBT,HENRY, | 2204 NE 39TH ST<br>KANSAS CITY 64116 | IM |
| ISE,FRANK,H, | 2030 SWIFT AVE<br>NORTH KANSAS CITY 64116 | ORS |
| KATF,NICOLA,YOUSSEF, | 2800 HOSPITAL DR<br>KANSAS CITY 64116 | P |
| KELLY,JOSEPH,G, | P O BOX 295<br>LIBERTY 64068 | AN |
| KING,PHILLIP,EUGENE, | UNIV OF KS MED CTR<br>KANSAS CITY KS 66103 | OR |
| KIRKLAND,JERRY,ALLISON, | 8630 NORTH OAK<br>KANSAS CITY 64155 | IM |
| KUENZI,DONALD,EDWARD, | 8630 N OAK TRFWY<br>KANSAS CITY 64155 | FP |
| *LANDERS,GARY,A, | 2800 HOSP DR<br>NORTH KANSAS CITY 64116 | EM |
| LANNING,R,JAMES, | 2700 HOSPITAL DR STE 200<br>NORTH KANSAS CITY 64116 | U |
| LATIMER,WALTER,N A, | 5140 NE ANTIOCH RD<br>KANSAS CITY 64119 | PD |
| LESLIE,STEPHEN,ANDREW, | 2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | PDA |
| LILA,ARAM, | 1205 N JESSE JAMES RD<br>EXCELSIOR SPRINGS 64024 | IM |
| LITTLEJOHN,ROBERT,T, | 2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | ORS |
| LLANES-RODAS,RIZALINA, | 2700 HOSPITAL DR<br>KANSAS CITY 64116 | ID |
| MC CLUGGAGE,NEWTON,COLE, | 2700 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | IM |
| MC CORMICK,JAMES,E, | 4030 N OAK ST<br>KANSAS CITY 64116 | GP |
| MC ELROY,MICHAEL,B, | 2700 HOSPITAL DRIVE SUITE 340<br>NORTH KANSAS CITY 64116 | HS |
| MC PHEE,WM,R, | 1205 W 76TH ST<br>KANSAS CITY 64114 | PTH |
| MILLER,THOMAS, | 2709 HOSPITAL DR<br>KANSAS CITY 64116 | FP |
| MULLINS,BERNARD,L, | 405 E 19TH ST<br>NORTH KANSAS CITY 64116 | GP |
| MUSGRAVE,DAVID,EDWARDS, | 420 N KIMBALL<br>EXCELSIOR SPRINGS 64024 | IM |
| MYERS,CARL,MACK, | PLATTE MEDICAL CLINIC<br>P O BOX 990<br>PLATTE CITY 64079 | FP |
| MYERS,DAVID,WM, | 610 S COMMERCIAL AVE<br>SMITHVILLE 64089 | OBG |
| NOURBAKHSH,MAHMOUD,M, | 5601 NORTH ANTIOCH RD<br>KANSAS CITY 64119 | GS |
| *OLMSTEAD,JOHN,P, | 2025 SWIFT<br>NORTH KANSAS CITY 64116 | GP |
| PALMERI,VICENTE,C, | NORTH KANSAS CITY MEM HOSP<br>2800 HOSPITAL DR<br>NORTH KANSAS CITY 64116 | FP |
| PATTERSON,CARROLL,DEAN, | SUITE 202<br>WESTOWNE IV<br>LIBERTY 64068 | P |
| PILEGGI,FELIX,ANTHONY, | 405 E 19TH ST<br>NORTH KANSAS CITY 64116 | GP |
| PINGLETON,WILLIAM,W, | 410 PROFESSIONAL BLDG NORTH<br>2700 HOSPITAL DR<br>KANSAS CITY 64116 | PUD |
| PRATHER,WILLIAM,R, | 2029 BURLINGTON<br>NORTH KANSAS CITY 64116 | IM |
| PURCELL,PAUL,WOODFORD, | 4 CARVER ST<br>SMITHVILLE 64089 | GP |
| RASMUSSEN,MICHAEL,A, | 8001 NW LONDON DR<br>KANSAS CITY 64151 | IM |
| REEDER,CHAS,C, | 620 COMMERCIAL AVENUE<br>SMITHVILLE 64089 | GP |
| REVARE,PAUL, | SPELMAN MEM HOSP<br>SMITHVILLE 64089 | FP |
| ROBINSON,VAN,MILLETT, | 300 PROFESSIONAL BLDG<br>2700 HOSPITAL DRIVE<br>KANSAS CITY 64116 | OBG |
| ROCKWELL,WAYNE,L, | 2700 HOSPITAL DRIVE<br>KANSAS CITY 64116 | OBG |
| SANDERS,GEO,EARL, | 617A WILLOW DR<br>LEE'S SUMMIT 64063 | GP |
| SAWYER,FLOYD,E, | 5350 N OAK ST TRAFFICWAY<br>KANSAS CITY 64118 | PD |
| SCHERTZ,TRUMAN,B, | 2700 HOSPITAL DR STE 400<br>NORTH KANSAS CITY 64116 | OPH |
| SCHUTZ,JOHN,PAUL, | 1236 JESSE JAMES ROAD<br>EXCELSIOR SPRINGS 64024 | |
| SIMON,GRACITA,S, | 1020 N WOODLAND DR<br>KANSAS CITY 64118 | AN |
| SLAUGHTER,CARL,RAY, | 1001 N WOODLAND<br>KANSAS CITY 64118 | OBG |
| *SMITH,CHAS,H, | 2025 SWIFT<br>KANSAS CITY 64116 | GP |
| SOMOZA,JOSE,RAMON, | 15 N E HILL ST<br>KANSAS CITY 64116 | PTH |
| SOPER,WM,DONALD, | 11 WESTOWNE CTR<br>LIBERTY 64068 | FP |
| SPORTSMAN,WELDON,LAVERN, | 7504 N OAK ST TRFY<br>KANSAS CITY 64118 | A |
| STRATMAN,CLARENCE,ARTHUR, | 6002-A N ANTIOCH RD<br>KANSAS CITY 64119 | FP |
| TADEO,ROMANITO,A, | SPELMAN MEM HOSP<br>SMITHVILLE 64089 | AN |
| TANEY,GARY,WAYNE, | 2700 HOSPITAL DR<br>SUITE 5<br>NORTH KANSAS CITY 64116 | OBG |
| THARP,JUDITH,LEE, | P O BOX 1079<br>PLATTE CITY 64079 | GP |
| THOMAS,FRED,ANTHONY, | 5601 N ANTIOCH<br>KANSAS CITY 64119 | D |
| THOMAS,THOMAS,CORDELL, | P O BOX 217<br>LIBERTY 64068 | GP |
| TRIPLETT,DANL,ARTHUR, | 2700 HOSPITAL DR STE 500<br>NORTH KANSAS CITY 64116 | OBG |
| TUMANUT,BENESTO,FARALAN, | 5601 N ANTIOCH RD<br>KANSAS CITY 64119 | OTO |
| UNDERWOOD,JOHNSON, | 5140 N E ANTIOCH RD<br>KANSAS CITY 64119 | GS |
| VILMER,CHARLES,E, | 2030 SWIFT AVE<br>NORTH KANSAS CITY 64116 | ORS |
| VILMER,STEPHEN,EDWARD, | 2030 SWIFT<br>NORTH KANSAS CITY 64116 | ORS |
| WALD,DONALD,MARVIN, | 1608 N E 69TH ST<br>KANSAS CITY 64118 | NM |

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* Doctor of Osteopathy.

WALTZ,JAMES,RICHARD, GS
WESTOWE III SUITE 101
LIBERTY 64068
WATERMAN,FRANKLIN,MAX, GP
101 W KANSAS
LIBERTY 64068
WEIDE,ALLAN,RAY, U
2700 HOSPITAL DR
NORTH KANSAS CITY 64116
WERNER,DEAN,FRANKLIN, OM
2025 SWIFT AVE
NORTH KANSAS CITY 64116
WERNER,FRANKLIN,CHACE, GS
5140 ANTIOCH RD
KANSAS CITY 64119
WICKS,EDWIN,D, PH
506 NW 43RD ST
KANSAS CITY 64116
WILLIAMS,JOHN,MORTON, GP
102 S FOREST
LIBERTY 64068
WILLIAMS,ROBT,DEAN, TS
6700 TROOST AVE
KANSAS CITY 64131
WILLIAMSON,GEO,L, ORS
2030 SWIFT
KANSAS CITY 64116
WILSON,DAVID,EARL, FP
6630 N OAK TRAFFICWAY
KANSAS CITY 64155
WITHROW,JOHN,B, GER
3925 N MAIN
KANSAS CITY 64116
WOLFRAM,PHILIP,HERMAN, GP
620 COMMERCIAL ST
SMITHVILLE 64089
WORKMAN,CHAS,E, ORS
2700 HOSPITAL DR SUITE 340
NORTH KANSAS CITY 64116
WRIGHT,EARL,JOS, PTH
2800 HOSPITAL DRIVE
KANSAS CITY 64116

## 054—CLINTON

LUCKENBILL,PAUL,T, GP
BOX 353
PLATTSBURG 64477
OZENBERGER,LARRY,ALTON, GP
400 CLAY AVE
PLATTSBURG 64477
SPALDING,WILBER,B, GP
PLATTSBURG 64477
SWEIGER,JAMES,HOWARD, GP
ROUTE 1
PLATTSBURG 64477

## 058—COLE

ALLAN,JAMES,EDWIN, OS
2009 E MC CARTY
JEFFERSON CITY 65101
BELDEN,EDGAR,A, PH
2124 LOWELL
JEFFERSON CITY 65101
BOWE,EDWIN,EARL, AN
915 LESLIE BLVD
JEFFERSON CITY 65101
BOYER,PETER,ALLEN, END
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
BREGANT,ROBT,EUGENE, IM
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
BUSBY,WM,EUGENE, PO
917-A LESLIE BLVD
JEFFERSON CITY 65101
CLARK,KENDALL,ALLEN, GE
226 E DUNKLIN ST
JEFFERSON CITY 65101
COOPER,CHAS,WINSTON, FP
423 CHERRY ST
JEFFERSON CITY 65101
COURTER,LARRY,P, R
1505 S W BLVD
JEFFERSON CITY 65101
COX,WM,ARTHUR, FP
812 SWIFTS HIGHWAY
JEFFERSON CITY 65101
DAVISSON,WALTER,F, OPH
913 LESLIE BLVD
JEFFERSON CITY 65101
DOERHOFF,ADELIA,L M, AN
SHEPHERD HILLS DR
JEFFERSON CITY 65101
DOERHOFF,ALAN,ROY, GS
SHEPHERD HILLS DR
JEFFERSON CITY 65101
EXON,C,STUART, GS
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
FALZONE,JOHN,J, U
824 SOUTHWEST BLVD
UROLOGY CARE INC
JEFFERSON CITY 65101
FILES,JAMES,BERTRAND, PTH
CHARLES E STILL HOSPITAL
1125 S MADISON STREET
JEFFERSON CITY 65101
FULLGRABE,EMIL,ALBERT, GP
1914 GREEN MEADOW DR
JEFFERSON CITY 65101
GARNER,LYNN,MASON, PH
403 MEIER DR
JEFFERSON CITY 65101
GARNER,ROYAL,STANLEY, FP
1804 SOUTHWEST BLVD
JEFFERSON CITY 65101
*GIFFEN,LAWRENCE,EVERETT, FP
420 EAST HIGH ST
JEFFERSON CITY 65101
GORDON,JAMES,SPENCER, AN
600 BOONVILLE RD
JEFFERSON CITY 65101
GUHLEMAN,HENRY,V, P
506 E HIGH ST
JEFFERSON CITY 65101
HANDLER,FRED,PHILLIP, PTH
614 BOONVILLE ROAD
JEFFERSON CITY 65101
HAUSER,ROBT,JAMES, OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY 65101
HUGHES,DEREK, P
4104 ROLLINS RD
COLUMBIA 65201
KANAGAWA,HAROLD,K, IM
701 W HIGH
JEFFERSON CITY 65101
KLEBBA,LARRY,B, ABS
P O BOX 403
JEFFERSON CITY 65101
KRAUTMANN,JOHN,JAMES, ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY 65101
LESLIE,JAMES,T, ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY 65101
LOYD,EARL,LAVON, IM
RIVIERA HEIGHTS
HOLTS SUMMIT 65043
MATTHEWS,JOHN,IMMEL, IM
701 W HIGH ST
JEFFERSON CITY 65101
MAXEY,HUGH,WORTHINGTON, OS
SALT RIVER NURSING HOME
SHELBINA 63468
MC CAFFREE,MARY,K, IM
903A S W BLVD
JEFFERSON CITY 65101
MC HANEY,JOHN,WM, GP
606 E HIGH ST
JEFFERSON CITY 65101
MEIER,FRANCIS,XAVIER, GP
1913 HAYSELTON DR
JEFFERSON CITY 65101
MEINERSHAGEN,CHAS,WM, PH
111 FOREST HILL
JEFFERSON CITY 65101
*NEMER,ROBT,JOHN, GP
VIENNA 65582
OSSMAN,JULIAN,ANTHONY, GS
2407 W MAIN
JEFFERSON CITY 65101
RAGLAND,JOHN,E,
P O BOX 517
LINN 65051
REA,JAMES,LEE, GS
606 DIX RD
JEFFERSON CITY 65101
RUSSELL,JOS,P, GPM
1717 GREENBERRY RD
JEFFERSON CITY 65101
RYAN,THOMAS,J, ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY 65101
SANDERS,JACK,SHELBY, CD
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
SCHMIDT,JEROME,HERMAN A, U
824 SOUTHWEST BLVD
JEFFERSON CITY 65101
SCHOKKER,JOHANNES, GS
MID MO HLTH SERVICE
JEFFERSON CITY 65101
SCOTT,EARL,DAVID, GP
2009 E MC CARTY
JEFFERSON CITY 65101
SENNOTT,JOHN,STEPHEN, PO
1407 SOUTHWEST BLVD
JEFFERSON CITY 65101
SHULL,G,DONALD, FP
1431 SOUTHWEST BLVD
JEFFERSON CITY 65101
SIU,KENNETH,KWONG CHEE, GS
915 A LESLIE BLVD
JEFFERSON CITY 65101
STAUFFER,HARRY,BEACH, OPH
830 BOONVILLE RD
JEFFERSON CITY 65101
STAUFFER,LARRY,KILGORE, OPH
700 W HIGH ST
JEFFERSON CITY 65101
STRICKER,HAROLD,C, OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY 65101
SU,PHILO,SHIEN CHAN, OBG
311 ELM TREE DR
JEFFERSON CITY 65101
SUGARBAKER,EVERETT,D, GS
503 E HIGH ST
JEFFERSON CITY 65101
SUMMERS,JOS,S, DR
214 MARSHALL ST
JEFFERSON CITY 65101
TANNER,ROBT,HARVEY, FP
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
TAYLOR,LEON,AKERS, GP
1104 W MAIN ST
JEFFERSON CITY 65101
TIETJEN,FRED,D, ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY 65101
VAN VRANKEN,EUGENE,E, PH
907 MO BLVD
JEFFERSON CITY 65101
WANKUM,ROBERT,P, OPH
1101-D SOUTHWEST BLVD
JEFFERSON CITY 65101
WATTS,BYRON,EDWARD, R
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
WERTH,JOS,ANDREW, D
917 LESLIE BLVD STE 3
JEFFERSON CITY 65101
WESTHOFF,DAVID,DOUGLAS, IM
1505 SOUTHWEST BLVD
JEFFERSON CITY 65101
WINEGAR,ALVON,C, OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY 65101

## 062—COOPER

ABELE,WM,ARVED, IM
620 MAIN ST
BOONVILLE 65233
AVERY,WILLARD,BARTLETT, PD
329 MAIN ST
BOONVILLE 65233
HATA,DAIKICHI, IM
329 MAIN ST
BOONVILLE 65233
HUMPHREYS,EDWARD,T, GS
329 MAIN ST
BOONVILLE 65233
STUART,BYRON,MC CLELLAN, IM
329 MAIN ST
BOONVILLE 65233
WINN,GEO,WARREN, GS
329 MAIN ST
BOONVILLE 65233

## 066—DALLAS-HICKORY-POLK-DADE

CARNELL,BILLY,MAX, GP
BUFFALO MED CENTER-BOX 436
BUFFALO 65622
GRIFFIN,M,EVELYN PLUMMER, PM
1257 CHERRY
BUFFALO 65622
GRIFFIN,OLIN,ADLAE, PH
BUFFALO 65622
HARRELL,HENRY,JACKSON, OS
ROUTE 1 BOX 535
SUMMERFIELD FL 32691
KAHLER,MONTE,RAY, GP
108 N MAIN ST
BOLIVAR 65613
MC CRAW,DOYLE,C, GP
711 N MAIN
BOLIVAR 65613
MC NEEL,LEE,ANDREW, IM
GREENFIELD 65661
ROBINSON,GEO,GAYLORD, GP
HUMANSVILLE 65674

## 070—DUNKLIN

CASH,CHAS,RAYMOND, GP
DUNMIRE AND CASH CLINIC
KENNETT 63857
CROOM,DORWYN,W, GP
P O BOX 516
WEST MEMPHIS AR 72301
DUNMIRE,GEO,C, IM
301 TEACO AVENUE
KENNETT 63857
ENGLISH,WALLACE,DAVIS, GP
P O BOX 107
CARDWELL 63829
HUANG,JUN,SHEN, OBG
P O BOX 526
KENNETT 63857
LEGAN,JOHN,KEITH, GS
617 BUTLER
KENNETT 63857
LOPANSRI,SOMAK, GP
3571 OSCAR AVE
PADUCAH KY 42001

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* Doctor of Osteopathy

MANUBAY,TERESITA, PD
204 W LINOEN CIRCLE
KENNETT 63857
MANUBAY,THEODORO, OR
2D4 W LINDEN CIRCLE
KENNETT 63857
MILTENBERGER,PAUL,C, GS
2I1 TEACO RO
KENNETT 63857
MOREHEAD,WM,EDWARO, GP
5D5 N BECKWITH
MALDEN 63863
PALENSKE,ROBT,LEON, GP
HORNERSVILLE 63855
PU,PIN,HSIU, PTH
P O BOX 827
KENNETT 63857
SINASA,SURAT, PTH
ID5 E WASHINGTON
KENNETT 63657
SISLER,MAYNARO,LEE, IM
217 COLLEGE
KENNETT 63857
SOONATTRAKUL,WUTHISAK, IM
I6I6 W WASHINGTON
KENNETT 63657
TARVER,QUINTON, GP
9I9 S JACKSON ST BOX 647
KENNETT 63857
ZIMMERMAN,JOE,A, GP
ID5 E WASHINGTDN
KENNETT 63857

## 074—FRANKLIN-GASCONADE-WARREN

ALLEN,JERRY,H, PD
1D6 ELM
WASHINGTON 63D9D
AULENBACHER,CARL,E, GS
#I EMERSON DR
WASHINGTON 63090
BAKER,OONALD,LEE, GP
MEDICAL ARTS CLINIC
UNIDN 63084
BANERJEE,OILIP, IM
8DO E 5TH ST
WASHINGTON 63090
BONNEY,SAML,COWN, EM
I325 S GRANO BLVD
ST LOUIS 63104
BOZZO,RAYMUNO,JOHN, GP
205 ELM ST
WASHINGTON 63090
BRENNER,PAUL,AOOLPH A, GP
1D6 W WASHINGTON ST
OWENSVILLE 65066
CRANE,JOHN,BRUCE, P
WASHINGTON 63090
CRAWFORD,ROBT,MILTON, GP
20 HUGHES FURD RD
SULLIVAN 63080
DE LA TORRE,JOHN,J, GP
459 W SPRINGFIELO
SULLIVAN 63D8D
EISENMANN,BENJ,PAUL, GP
NEW HAVEN 63068
EYERMANN,HENRY,WALTER, GP
WARRENTON 63383
FARRELL,SAMMY,LEWIS, FP
2D5 ELM ST
WASHINGTON 6309D
HOELSCHER,HAROLD,F, GP
304 E MAIN ST
WARRENTON 63383
LEE,IN,KOOK, OBG
205 ELM ST
WASHINGTON 63D9D
MAYS,FRANK,GRISHAM, GS
I57 POTTERY RD
WASHINGTON 63D90
MITCHELL,THUS,JAMES, GP
75 N MAIN
ST CLAIR 63D77
MOELLENHOFF,ROBT,WM, 1M
2ND AND ELM STREETS
WASHINGTON 6309D
MURNEY,JOSEPH, GS
201 ELM ST
WASHINGTON 6309D
POST,JOHN,PLACIOUS, GP
416 CEDAR ST
WASHINGTON 6309D
RICHARDSON,GEO,ALBERT, GP
BOX 307
UNION 63084
RICHARDSON,WM,ROBT, GP
BOX 226
UNION 63D84
RDYSE,ROY,PEARL, GP
316 ELM ST
SULLIVAN 6308D
RYAN,JOHN,BERNARO, GP
429 CEDAR
WASHINGTON 6309D
SCHMIDT,CHAS,ARTHUR, GP
GERALD MEO CENTER
GERALO 63037

SHAW,JAMES,T, FP
I8TH & WEIN STS
HERMANN 6504I
SHEA,JAMES,G, IM
2D5 ELM ST
WASHINGTON 63D90
SINCOX,CHAS,HARVEY, FP
2D5 ELM
WASHINGTON 63D9D
STINE,GORDON,WAYNE, FP
ROUTE I BOX I89R
WASHINGTON 63D90
STREHLMAN,BENJ,GEO, FP
510 WEST ENO
UNION 63D84
UMALI,EMILIANO,CAOANO, GS
EL VALLIJO SUBOO
#6 VIONTO DR
WASHINGTON 63D9D
WOLCOTT,JAMES,B, GS
6DD E FIFTH ST
SUITE ID4
WASHINGTON 63090
WORKMAN,GEO,M, FP
P O BOX 246
I8TH & WEIN ST
HERMANN 65D4I

## 078—GRAND RIVER (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb Counties)

BALES,EUGENE,L, GP
BALES CLINIC
111 N FOLGER ST
CARROLLTON 64633
BOHNSACK,RALPH,WOODS, GP
I25 E LOCKLING
BROOKFIELD 64628
BRENNAN,RAYMOND,J, OS
ELMOALE RD
CHILLICOTHE 64601
BROYLES,WATKINS,A, GP
P O BOX 352
BETHANY 64424
COFER,THOS,NOBLE, IM
5II ELM P O BOX 905
CHILLICOTHE 6460I
CONRAD,JOS,A, GP
511 ELM ST
P O BOX 905
CHILLICOTHE 646DI
CROSS,ALBERT,DEAN, GP
606 E 9TH ST
TRENTON 64663
OALEY,FRANK,RUSSELL, GP
HAMILTON 64644
DIXON,JOHN,R, ABS
125 E LOCKLING ST
BROOKFIELO 64628
OUFFY,OLIVER,F,
532 PLEASANT VIEW ST
TRENTON 64683
ELLSWORTH,WILLARD, GP
CAINSVILLE 64632
FAIR,WM,L, FP
910 CLAY ST
CHILLICOTHE 646D1
FUSON,WM,ARTHUR, GP
604 PLEASANT VIEW
TRENTON 64683
GALE,JOS,FRANCIS, GP
103 11TH ST
CHILLICOTHE 646D1
GALVEZ,SISENANOO,P, IM
1D5 S KANSAS
MARCELINE 64658
GARY,GEO, GP
I21 N KANSAS
MARCELINE 64658
GEARHART,MERRIAM, GS
2525 MILLER ST
BETHANY 64424
GILLILAND,CHAS,EOWARO, IM
617 W 4TH ST
CAMERON 64429
HOWELL,BILLY,DALE, GP
P O BOX 367
BROOKFIELD 64628
MANOLER,GEO, OTO
9I3 WEBSTER ST
CHILLICOTHE 646D1
MC ARTOR,THOS,ROSCOE, GP
BOX 135
BRUWNING 6463D
NIXON,EOWARD,EARL, GP
GALLATIN 6464D
PARK,YOUNG,EUY, PTH
100 CENTRAL STREET
CHILLICOTHE 6460I
PLATZ,JOHN,HERSCHEL, GP
16 N MONROE ST
CARROLLTON 64633
ROSE,JOHN,FRIEORICH, R
1024 GRANOVIEW
CHILLICOTHE 64601

SMITH,ROBT,WINOLE, GP
BROOKFIELO PLAZA
BROOKFIELO 64628
STATON,R,HAMILTON, GP
215 S MAIN ST
CARROLLTON 64633
SZYMANSKI,STANLEY,R, R
329 N ROLLINS ST
MACON 63552
TRINIOAO,HERMANITO,REYES, GS
913 WEBSTER ST
CHILLICOTHE 646DI
VANOIVER,VIRGIL,DALE, GP
BOX 324
OSAGE BEACH 65065
WILSON,FRED,K, GP
WINSTON 64689
YOON,JIN,SOO, OBG
I03 IITH ST
CHILLICOTHE 6460I

## 082—GREENE

ALCANCIA,ELPIDIO,Y, TR
1423 N JEFFERSON
SPRINGFIELD 65602
ALLEN,JERRY,H, GS
1211 S GLENSTONE ST
SPRINGFIELO 658D4
ALLISON,JAMES,BRADLEY, P
2200 E SUNSHINE STE 30I
SPRINGFIELO 656D4
ANCHETA,APOLINARIO,A, GP
I7I5 BOONVILLE
SPRINGFIELD 656D3
ANTHONY,DALLAS,DEAN, R
6D9 CHERRY
PROFESSIONAL BLOG SUITE 403
SPRINGFIELO 65806
ASH,CHARLES,J, ORS
3D6 MEDICAL TOWER
SPRINGFIELO 658D2
ASHLEY,THOS,E, GS
1211 S GLENSTONE ST
SPRINGFIELD 65804
ATKINSON,THOS,ERNEST, OPH
19DD S NATIONAL NO 14DD
SPRINGFIELD 65804
AUNER,CECIL,RAY, IM
600 S GLENSTONE
SPRINGFIELO 658D2
BACK,OONALD,KING, IM
12I1 S GLENSTONE
SPRINGFIELD 658D4
BAILEY,ALAN,HALE, TS
609 CHERRY ST
221 PROFESSIONAL BLOG
SPRINGFIELO 658D6
BALDWIN,RICHARD,M, OBG
6DO S GLENSTONE ST
SPRINGFIELO 65802
BARNHILL,FLOYD,R, OTO
I90D SOUTH NATIONAL
SPRINGFIELO 65804
BARTLETT,JOHN,E, DR
COX MEO CENTER DEPT OF R
SPRINGFIELD 658D2
BARTLEY,RICHARD,LEE, FP
SOUTHWEST MISSOURI STATE UNIV
TAYLOR HEALTH CENTER
SPRINGFIELD 65602
BEISNER,DONALD,HENRY, OPH
29D0 S FREMONT
SPRINGFIELD 658D4
BENNOCH,SHANE,LINTUN, EM
COX MED CNTR
1423 N JEFFERSON
SPRINGFIELD 658D2
BENSON,RONALO,GORDON, OBG
404 E BATTLEFIELO
SPRINGFIELO 656D7
BENTLEY,JOHN,O, IM
1900 S NATIONAL SUITE 22D0
SPRINGFIELO 65804
BERRY,PAUL,THOS, GP
I740 S GLENSTONE OFF O
SPRINGFIELD 658D4
BLADES,ROSS,DEES, U
I2II S GLENSTONE AVE
SPRINGFIELD 65804
BONEBRAKE,MAC,OONALO, OBG
609 CHERRY ST
304 PROFESSIONAL BLOG
SPRINGFIELO 65606
BOONE,MARTIN,HAYDEN, AN
RT 2 BOX 3I5
SPRINGFIELO 658D2
BORJA,EGBERT,RULLOOA, IM
1423 N JEFFERSON
RADIATION DEPT
SPRINGFIELD 65802
BOWERS,JOHN,W, OPH
I900 S NATIONAL
SPRINGFIELO 658D4
BRENT,LANNY,ROSS, DR
2D8 MEDICAL TOWER
SPRINGFIELO 65602

BRIAN,WM,JOHN, AN
229 PROFESSIONAL BLOG
SPRINGFIELO 65806
BROAOOUS,LOREN,EHRMAN, IM
1550 E SUNSHINE
SPRINGFIELO 65804
BRDOKS,JOHN,E, N
609 CHERRY
406 PROFESSIONAL BLOG
SPRINGFIELO 65806
BROWN,OAVIO,W, ORS
609 CHERRY ST
118 PROFESSIONAL BLOG
SPRINGFIELO 65806
BROWN,JAMES,T, CO
2222 E BERKELEY
SPRINGFIELO 65804
BURKEY,JOROAN,W, OTO
410 PROF BLOG
SPRINGFIELO 65806
BUSIEK,ERWIN,FREO, PO
609 CHERRY
319 PROFESSIONAL BLOG
SPRINGFIELO 65806
BUSIEK,PAUL,JOS, PO
1717 E GRANO
SPRINGFIELO 65804
BUSIEK,URBAN,J, PO
609 CHERRY ST
319 PROFESSIONAL BLOG
SPRINGFIELO 65806
BUTLER,CHARLES,F, HEM
1443 N RDBBERSON
SUITE 303
SPRINGFIELO 65802
CALLAWAY,GUY,O, IM
901 E PORTLANO
SPRINGFIELO 65804
CANLAS,MARIO,P, NS
205 MEOICAL TOWERS
SPRINGFIELO 65802
CARLTON,LYNN,N, OR
403 PROFESSIONAL BLOG
SPRINGFIELD 65806
CARR,PHILLIP,WM, CD
1211 S GLENSTONE
SPRINGFIELO 65804
CHEEK,J,WM, CD
1900 S NATIONAL AVE
SPRINGFIELO 65804
CHRISTENSEN,HAROLD,L, CO
1550 SUNSHINE
SPRINGFIELO 65804
CHRISTY,RAYMONO,ARTHUR, PO
1211 S GLENSTONE ST
SPRINGFIELO 65804
CLARKE,MICHAEL,JAMES, GS
609 CHERRY ST
116 PROFESSIONAL BLOG
SPRINGFIELO 65806
CLARKE,MICHAEL,STEWART, ORS
600 S GLENSTONE ST
SPRINGFIELO 65802
CLARY,WM,F,
1900 S NATIONAL
SPRINGFIELO 65804
CLAWSON,JAMES,WM, GS
609 CHERRY
305 PROFESSIONAL BLOG
SPRINGFIELO 65806
CLAYTON,EOGAR,L, PO
609 CHERRY ST
103 PROFESSIONAL BLOG
SPRINGFIELO 65806
COCHRAN,THOS,EWELL, CO
1211 S GLENSTONE ST
SPRINGFIELO 65804
COLLER,FREOERICK,CHAS, NM
2108 E CAMBRIOGE
SPRINGFIELO 65804
COLLINS,OOUGLASS,OAVIO, N
114 PROFESSIONAL BLOG
SPRINGFIELD 65806
CONRAO,RAYMONO,C, •OBG
609 CHERRY ST
117 PROFESSIONAL BLOG
SPRINGFIELO 65806
COOK,JAMES,ROBT, AN
2333 E GLENWOOO
SPRINGFIELO 65804
COOPER,CLAUOE,WESLEY, IM
1211 S GLENSTONE
SPRINGFIELO 65804
COROONNIER,JAMES,KERMIT, GS
1550 E SUNSHINE
SPRINGFIELO 65804
CORRY,FRANCIS,M, GS
1211 S GLENSTONE
SPRINGFIELO 65804
COSCIA,ROBERT,L, GS
501 MEOICAL TOWER
SPRINGFIELO 65802
COULTER,JAMES,WM, PUO
1550 E SUNSHINE
SPRINGFIELO 65804

CRAWFORO,ORAL,B, AN
609 CHERRY
229 PROFESSIONAL BLOG
SPRINGFIELO 65806
CRIGHTON,JOHN,C, GS
501 MEOICAL TOWER
SPRINGFIELO 65802
CROSTHWAIT,EOWARD,L, GP
1305 BATTLEFIELO
SPRINGFIELO 65804
CUNNINGHAM,O,OEAN, GP
1715 BOONVILLE AVE
SPRINGFIELO 65803
OANIELSSON,ERNST,PETER, PS
3324 E REDBUO LANE
SPRINGFIELD 65804
DECKARD,SHELBY,WAYNE, IM
2256 E MEAOOW
SPRINGFIELO 65804
DILLARO,ERIN,M, ORS
118 PROFESSIONAL BLDG
SPRINGFIELD 65806
OILLS,JOS,NEWTON, GS
1554 S CAMPBELL
SPRINGFIELD 65804
OOMANN,OARREL,OUANE, PS
508 MEOICAL TOWER
SPRINGFIELO 65802
OOWELL,J,LARRY, GP
BOX 39
STRAFFORO 65757
OUNCAN,ROBT,OALRYMPLE, GS
1550 E SUNSHINE ST
SPRINGFIELO 65804
ELKINS,RONALO,FLAGG, CRS
2830 E GLENWOOO ST
SPRINGFIELO 65804
ELLIS,FRANCIS,JEROME, OBG
304 PROFESSIONAL BLOG
SPRINGFIELO 65806
ELLIS,HARRY,LEON, U
115 PROF BLOG
SPRINGFIELO 65806
ENKVETCHAKUL,BOONMEE, AN
3573 E WHITEHALL
SPRINGFIELO 65804
EVANS,EZRA,LEVI, PO
2457 E BARATARIA ST
SPRINGFIELO 65804
FARTHING,GENE,WM, GS
2030 S NATIONAL
SPRINGFIELO 65804
FERGUSON,JOHN,LYNN, RHU
1550 E SUNSHINE
SPRINGFIELO 65804
FERGUSON,JOHN,P, OBG
609 CHERRY
304 PROFESSIONAL BLOG
SPRINGFIELO 65806
FERRELL,THOS,ENOCH, GS
1550 E SUNSHINE
SPRINGFIELO 65804
FINK,ROGER,LEE, PTH
204 MEOICAL TOWER
SPRINGFIELO 65804
FITCH,C,H MAX, GP
1715 BOONVILLE
SPRINGFIELO 65803
FITE,JAMES,ELWIN, EM
LESTER COX EMERGENCY ROOM
1423 JEFFERSON
SPRINGFIELO 65802
FOGERSON,VIRGINIA,L, GP
900 S PICKWICK
SPRINGFIELO 65804
FOGLE,PHILIP,RICHARO, OBG
1900 S NATIONAL
SPRINGFIELO 65804
FRANCIS,WILLIAM,C, ORS
600 S GLENSTONE ST
SPRINGFIELO 65802
GASKA,WALTER,JOHN, PS
1211 S GLENSTONE
SPRINGFIELO 65804
GENTRY,MERRITT,LOGAN, PH
1012 EAST CAMBRIOGE
SPRINGFIELO 65604
GENTRY,MICHAEL,ALLEN, O
1722 K S GLENSTONE
SPRINGFIELO 65804
GEROES,JOHN,ALFREO, CLP
ST JOHNS HOSPITAL
SPRINGFIELO 65804
GERMAN,WALTER,A, OBG
1211 S GELNSTOEN ST
SPRINGFIELO 65804
GIOOINGS,FRANK,CHANOLER, R
208 MEOICAL TOWER
SPRINGFIELO 65804
GIFFIN,JAMES,MANNING, GS
302 PROF BLOG
SPRINGFIELO 65806
GILL,PAUL,JONES, IM
1211 S GLENSTONE
SPRINGFIELO 65803
GLOVER,JACK,FOY, IM
1550 E SUNSHINE
SPRINGFIELO 65804

GOSE,OON,FERRELL, GS
1550 E SUNSHINE ST
SPRINGFIELO 65804
GRACE,STEVE, OBG
304 PROFESSIONAL BLOG
SPRINGFIELO 65806
GUTZMER,ERNEST,W, PUD
2714 E GLENWOOO
SPRINGFIELO 65804
GWIN,EOWARO, IM
1550 E SUNSHINE
SPRINGFIELO 65804
H'OOUBLER,CHAS,EDWARD, GS
406 MEOICAL TOWER
SPRINGFIELO 65802
H'OOUBLER,FRANCIS,T, GP
307 MEOICAL TOWER
SPRINGFIELO 65802
H'OOUBLER,PETER,BEMIS, GS
302 PROF BLDG
SPRINGFIELO 65806
HAEN,CHAS,JUS, GP
1630 N JEFFERSON
SPRINGFIELO 65803
HALL,DAVIO,W, FP
ROUTE 2
ROGERSVILLE 65742
HALL,OURWARO,GORHAM, PH
2442 S FREMONT
SPRINGFIELO 65804
HAMBURG,FREOERIC,LEONARD, PO
114 PROFESSIONAL BLOG
SPRINGFIELO 65806
HANAN,ERNEST,BYRON, PTH
724 EAST KINGSBURY
SPRINGFIELO 65802
HANSS,ARMANO,WM, IM
642 S MISSION
SPRINGFIELO 65804
HARMON,BEN,C, ORS
1211 S GLENSTONE ST
SPRINGFIELO 65804
HARRISON,STRATTON,WM, OPH
410 PROF BLDG
SPRINGFIELD 65806
HARVEY,HAROLO,OEWEY, PS
2030 S NATIONAL
SPRINGFIELO 65804
HAWKINS,CALVIN,OALE, R
4932 S PALMER
SPRINGFIELO 65604
HELLAM,OUANE,C, CO
419 PROFESSIONAL
SPRINGFIELO 65806
HERFKENS,KENNETH,OEAN, IM
1900 S NATIONAL
SPRINGFIELO 65804
HILLS,JOE,ELLIOTT, CO
1550 E SUNSHINE ST
SPRINGFIELO 65804
HINOS,PAUL,AUBREY, OBG
TAYLOR HEALTH CLINIC
SPRINGFIELO 65802
HOLLANO,ROBT,OUANE, PO
1211 S GLENSTONE
SPRINGFIELO 65804
HOLLIS,RICHARO,W, AN
609 CHERRY
229 PROFESSIONAL BLOG
SPRINGFIELO 65806
HOLMES,OANL,EUGENE, IM
RT 9 BOX 191
SPRINGFIELO 65804
HOLMES,OAVID,R, OBG
3259 E SUNSHINE
SUITE N
SPRINGFIELO 65804
HOOVER,HERBERT,LEE, OBG
1330 E WALNUT ST
SPRINGFIELO 65802
HORTON,JAMES,O, ORS
1235 E OELMAR
SPRINGFIELO 65804
HRNICEK,GARY,E, IM
1443 N ROBBERSON
SPRINGFIELO 65802
HUBBARO,SALLY,LYNN, GP
901 NATIONAL
SMSU STUOENT CLINIC
SPRINGFIELO 65802
HUEWE,OOUGLAS,ANTHONY, O
321 PROF BLOG 609 CHERRY ST
SPRINGFIELO 65806
HUFFT,ROBERT,E, ORS
600 S GLENSTONE MEO VILL
SPRINGFIELD 65802
HULSTRA,JOHANNES,F W, P
1211 S GLENSTONE
SPRINGFIELO 65802
IPPENSEN,JOHN,HENRY, OTO
1900 SOUTH NATIONAL
SPRINGFIELO 65804
ISAAC,ANITA,M LANDRUM, PM
LESTER E COX MEOICAL CTR
SPRINGFIELO 65802
IVY,HENRY,BERRY, OPH
600 S GLENSTONE AVE
SPRINGFIELO 65802

JAMESON,JAMES,E, ORS
118 PROFESSIONAL BLDG
SPRINGFIELD 65806
JOBE,CHAS,LOUIS, IM
1211 S GLENSTONE-S G C CLINIC
SPRINGFIELD 65804
JOHNSON,FRITZ,MAHIN, TS
1900 S NATIONAL
SPRINGFIELD 65804
JOHNSON,GEO,ACIE, AN
RT #9 BOX 211
SPRINGFIELD 65804
JOHNSON,GEO,LAWRENCE, GS
402 MEDICAL TOWER
SPRINGFIELD 65802
JOHNSON,JOS,CONE, OBG
1211 S GLENSTONE
SPRINGFIELD 65804
JOHNSON,W,B, IM
1443 N ROBBERSON
SPRINGFIELD 65802
JOHNSON,WARFORD,B, IM
220 PROFESSIONAL BLDG
SPRINGFIELD 65804
JOHNSON,WM,FRAY, U
211 PROF BLDG
SPRINGFIELD 65806
JOHNSTON,JOS,LEROY, OBG
2655 SOUTHERN HILLS BLVD
SPRINGFIELD 65806
JONES,HAROLD,LEE, IM
1550 SUNSHINE
SPRINGFIELD 65804
KELL,GARY,A, NEP
1550 E SUNSHINE
SPRINGFIELD 65804
KELLY,JAMES,CORBET, PD
1900 S NATIONAL
SUITE 2500
SPRINGFIELD 65804
KEY,JAMES,S, D
415 PROFESSIONAL BLDG
SPRINGFIELD 65806
KHALIL,TAMER,GEO, IM
3259 C EAST SUNSHINE
SPRINGFIELD 65804
KINDER,DOYLE,O, GP
1211 S GLENSTONE
SPRINGFIELD 65804
KIPFER,ROBT,EARL, GE
1550 E SUNSHINE
SPRINGFIELD 65804
KISSELL,RICHARD,W, IM
600 S GLENSTONE
SPRINGFIELD 65804
KLINGNER,GEO,M, IM
1630 N JEFFERSON ST
SPRINGFIELD 65803
KLINGNER,GEO,MALCOLM, GP
1630 N JEFFERSON ST
SPRINGFIELD 65803
KLINKERFUSS,GEO,HENRY, N
PROFESSIONAL BLDG RM 406
ST LOUIS 63114
KNABB,HENRY,F, GP
1630 NORTH JEFFERSON
SPRINGFIELD 65803
KNABB,KENNETH,EDWIN, GP
1630 N JEFFERSON ST
SPRINGFIELD 65803
KOBBERMANN,KOBBY,JOS, OBG
1900 S NATIONAL
SPRINGFIELD 65804
KOLZE,VERNON,WM, GS
600 S GLENSTONE ST
SPRINGFIELD 65802
KRAHN,HENRY,CORNELIUS, R
208 MEDICAL TOWER
SPRINGFIELD 65802
LANGSTON,WALTER,ROLAND, GS
1453 S FAIRWAY AVE
SPRINGFIELD 65804
LE FEVRE,PHILIP,JOS, P
2030 S NATIONAL
SPRINGFIELD 65804
LEIDINGER,KARL,J, GP
P O DRAWER Y
REPUBLIC 65738
LEMMON,GEO,BRUCE, A
407 PROFESSIONAL BLDG
SPRINGFIELD 65806
LEWIS,NOEL,REX, PTH
RT 1 BOX 450
STRAFFORD 65757
LIN,CHI-HSI, N
3259 K EAST SUNSHINE
SPRINGFIELD 65804
LITTON,LYLE,D, DR
208 MEDICAL TOWER
SPRINGFIELD 65802
LOCKHART,CHAS,E, GS
609 CHERRY ST
105 PROFESSIONAL BLDG
SPRINGFIELD 65806
LOEB,RICHARD,HOFFMAN, IM
1211 S GLENSTONE
SPRINGFIELD 65804
LORENC,ERNEST, O
321 PROFESSIONAL BLDG
SPRINGFIELD 65806
LOVETT,ROBERT,LAWSON, CLP
204 MEDICAL TOWER
SPRINGFIELD 65802
LOWE,HORACE,ARCH, GS
302 PROFESSIONAL BLDG
SPRINGFIELD 65806
LUNDMAN,HUGH,JOHN, GS
609 CHERRY
116 PROFESSIONAL BLDG
SPRINGFIELD 65806
LURIE,HAROLD,HERSCHEL, IM
600 S GLENSTONE
SPRINGFIELD 65802
LUZECKY,MICHAEL,HARRY, N
SUITE 406 PROFESSIONAL BLDG
609 CHERRY ST
SPRINGFIELD 65806
LYNCH,THOS,WESTBROOK, D
SUITE 306 PROFESSIONAL BLDG
SPRINGFIELD 65806
MADDUX,WM,PAUL, PM
2634 INGLEWOOD RD
SPRINGFIELD 65804
MAHER,ROBT,W, GS
609 CHERRY
307 PROFESSIONAL BLDG
SPRINGFIELD 65806
MAJOR,TROY,E, D
1630 N JEFFERSON
SPRINGFIELD 65802
MANTELL,JACK,MOORE, IM
1550 E SUNSHINE
SPRINGFIELD 65804
MAPLE,FRANCIS,M, IM
1211 S GLENSTONE
SPRINGFIELD 65804
MC ALHANY,HOWARD,J, NS
609 CHERRY ST
217 PROFESSIONAL BLDG
SPRINGFIELD 65806
MC CREA,WM,A, GP
1211 S GLENSTONE
SPRINGFIELD 65804
MC KINSEY,JOHN,JEROME, IM
1900 S NATIONAL
SPRINGFIELD 65804
MC LAUGHLIN,RICHARD,D, OBG
117 PROFESSIONAL BLDG
SPRINGFIELD 65806
MENCHETTI,DONALD,EUGENE, GP
1630 N JEFFERSON
SPRINGFIELD 65803
MENDEZ,MARIA,ARACEL S, P
1900 S NATIONAL
SPRINGFIELD 65804
MENTGEN,CARL,NICHOLAS, IM
1550 E SUNSHINE ST
SPRINGFIELD 65804
MICHAEL,HARVEY,RAY, ORS
1211 S GLENSTONE
SPRINGFIELD 65804
MIHALEVICH,JOHN,A, IM
309 PROFESSIONAL
SPRINGFIELD 65806
MILLER,DAVID,D, GS
1443 N ROBBERSON
SPRINGFIELD 65802
MILNE,JAY,LAWRENCE, U
609 CHERRY ST
204 PROFESSIONAL BLDG
SPRINGFIELD 65806
MOORE,DE,ARMOND, OS
418 PROFESSIONAL BLDG
SPRINGFIELD 65806
MORTON,PAUL,CHAS, IM
1508 E STANFORD
SPRINGFIELD 65804
MOSELEY,FREDERICK,T, GS
SPRINGFIELD 65806
NAPPER,MARVIN,LEE, R
RTE 1 BOX 311
ASH GROVE 65604
NEBLETT,LEWIS,MICHAEL, OTO
1211 SOUTH GLENSTONE
SPRINGFIELD 65804
NELSON,DAVID,EUGENE, DR
SUITE 208
MEDICAL TOWER
SPRINGFIELD 65802
NEU,LEO,THOS, HEM
3008 CARLISLE CIRCLE
SPRINGFIELD 65804
OLSON,ELBERT,RULE, OPH
1900 S NATIONAL STE 1400
SPRINGFIELD 65804
OVEREND,DONALD,STEWART, PD
1211 S GLENSTONE ST
SPRINGFIELD 65804
PADDOCK,GEORGE,OWEN, OPH
1211 S GLENSTONE
SPRINGFIELD 65804
PALCHEFF,CHRIS,L, PD
1722 SS S GLENSTONE ST
SPRINGFIELD 65804
PARK,WM,ISAIAH, IM
209 PROF BLDG
SPRINGFIELD 65806
PENNINGER,WILLIAM,H, ORS
600 S GLENSTONE ST
SPRINGFIELD 65802
PETERSON,STANLEY,S, IM
1211 S GLENSTONE ST
SPRINGFIELD 65804
PFEIFFER,RALPH,BURTON, GS
FERRELL-DUNCAN CLINIC
1550 E SUNSHINE
SPRINGFIELD 65804
PIKER,KENNETH,O, FP
1525 N CAMPBELL AVE
SPRINGFIELD 65803
PINCKLEY,JAMES,N, CDS
1211 S GLENSTONE
SPRINGFIELD 65804
PODRECCA,GUIDO,ITALICO, PTH
207 PROF BLDG
SPRINGFIELD 65806
POWELL,EDWIN,MC ARDLE, U
115 PROF BLDG
SPRINGFIELD 65806
PRATER,BILL,G, OPH
410 PROF BLDG
SPRINGFIELD 65806
PREVITI,VINCENT, GS
452 S MARKET
SPRINGFIELD 65806
PRUETT,PAUL,LEON, OBG
304 PROFESSIONAL BLDG
SPRINGFIELD 65806
QUINN,PAUL,STANLEY, PTH
1423 N JEFFERSON AVE
SPRINGFIELD 65802
RABORAR,ARTESO,C, PTH
207 PROF BLDG
SPRINGFIELD 65804
RAINWATER,ELMER,H, OPH
410 PROFESSIONAL BLDG
SPRINGFIELD 65804
RIESENBERG,DONALD,E, IM
1900 S NATIONAL
SPRINGFIELD 65804
RISING,DEAN,ROBT, PD
1211 S GLENSTONE
SPRINGFIELD 65804
ROBINSON,GARY,LEWIS, OBG
404 E BATTLEFIELD RD
SPRINGFIELD 65801
RUFF,PAUL,G, TS
1211 S GLENSTONE
SPRINGFIELD 65804
RUSSELL,EARL,D, AM
1500 S GLENSTONE ST
SPRINGFIELD 65804
RYAN,ROBERT,A, GP
2523 EAST BROADMOOR
SPRINGFIELD 65804
SALA,JOSE,MARIA, TR
900 CAMINO DE LA SALUD NE
ALBUQUERQUE NM 87131
SAMMON,THOS,JAMES,
317 PROTESSIANO BLDG
SPRINGFIELD 65806
SAUER,PAUL,ENRICH, TS
504 MEDICAL TOWER
SPRINGFIELD 65802
SCANLON,ROBT,CLAYTON, GP
403 MEDICAL TOWER
SPRINGFIELD 65803
SCHAEFFER,EDWARD,M, OPH
2900 S FREMONT
SPRINGFIELD 65804
SCHNARR,WILLIAM, IM
1211 S GLENSTONE
SPRINGFIELD 65804
SCHREIBER,NORMAN,JOHN, GP
3794 CHERRY
SPRINGFIELD 65804
SCHROFF,CARLE,HIGHLAND, GP
1630 N JEFFERSON ST
SPRINGFIELD 65803
SCHWARTZ,EUGENE,JAMES, PD
609 CHERRY ST
317 PROFESSIONAL BLDG
SPRINGFIELD 65806
SHACKTER,BRUCE,I, ORS
1550 E SUNSHINE ST
SPRINGFIELD 65804
SHAEFFER,JAMES,T, ORS
118 PROFESSIONAL BLDG
SPRINGFIELD 65806
SHANE,RAMON,ARTHUR, TS
1900 S NATIONAL
SPRINGFIELD 65804
SHELTON,ROY,WAYNE, OPH
1211 S GLENSTONE
SPRINGFIELD 65804
SHIELDS,LAWRENCE,S, O
SMSU TAYLOR HEALTH CTR
SPRINGFIELD 65802
SICELUFF,JOS,GRICE, U
609 CHERRY ST
224 PROFESSIONAL BLDG
SPRINGFIELD 65806

SILSBY,DON,JAMES, GS
401 PROFESSIONAL BLDG
SPRINGFIELD 65806
SILSBY,HARRY,DOZIER, P
1369 SOUTH FAIRWAY AVE
SPRINGFIELD 65804
SIMPSON,ALBERT,PHILLIPS, GP
SE MED BLDG 1636 S GLENSTONE
SPRINGFIELD 65804
SIMPSON,EMERSON,LANDEN, GP
1630 N JEFFERSON ST
SPRINGFIELD 65803
SMITH,CARLIE,B SOUTER, OS
1223 S KENTWOOD
SPRINGFIELD 65804
SNEAD,WILLIAM,H, ORS
118 PROFESSIONAL BLDG
SPRINGFIELD 65806
SNOW,EMASUE, P
2030 SOUTH NATIONAL
SPRINGFIELD 65804
SOLEM,DANA,LYMAN, P
430 SOUTH AVE
SPRINGFIELD 65805
SPALDING,DAVID,LEWIS, OPH
1900 S NATIONAL RD-STE 1400
SPRINGFIELD 65804
SPONENBERG,DON,DEE, PD
1211 S GLENSTONE ST
SPRINGFIELD 65804
STAMATIS,JOHN,JAMES, TS
1900 S NATIONAL
SUITE 2600
SPRINGFIELD 65804
STEHR,CHRISTIAN,HERMAN, AN
609 CHERRY
229 PROFESSIONAL BLDG
SPRINGFIELD 65606
STEWART,R,WENDELL, GP
609 E CHERRY ST
219 PROFESSIONAL BLDG
SPRINGFIELD 65606
STEWART,ROBT,B, OPH
2360 EAST GRAND
SPRINGFIELD 65804
STUBBLEFIELD,WAYNE, GP
2740 S GLENSTONE
SPRINGFIELD 65804
STUFFLEBAM,ROBT,EARL, IM
2323 E ROSEBRIER
SPRINGFIELD 65804
STURTEVANT,HARWOOD,N, R
609 CHERRY
403 PROFESSIONAL BLDG
SPRINGFIELD 65806
SULLIVAN,DAN,THOMAS, DR
609 CHERRY ST
403 PROFESSIONAL BLDG
SPRINGFIELD 65806
SUNDSTROM,FRANK,O, ORS
1211 S GLENSTONE ST
SPRINGFIELD 65802
SUVA,MORFEO,MARIANO, IM
440 S MARKET STREET
SPRINGFIELD 65602
SWEENEY,THOS,PATRICK, R
403 PROFESSIONAL BLDG
SPRINGFIELD 65806
TARRASCH,ERNEST,L, OPH
1636 S GLENSTONE AVE
SPRINGFIELD 65604
TAYLOR,WM,EDWARD, GP
1701 RANCH DRIVE
SPRINGFIELD 65602
TENDAI,MARK,MYROSLAW, OBG
505 MEDICAL TOWER
SPRINGFIELD 65802
TERRY,JAMES,F, U
115 PROF BLDG
SPRINGFIELD 65606
THOMASSON,DAVID,D, PD
600 S GLENSTONE
SPRINGFIELD 65802
TILLMAN,WALTER,WM, AN
229 PROF BLDG
SPRINGFIELD 65806
TOMBRIDGE,THOS,LEO, PTH
1235 E CHEROKEE
ST JOHN'S HOSPITAL
SPRINGFIELD 65604
TROTTER,WM,YATES, IM
1243 E CATALPA
SPRINGFIELD 65804
TROXIL,ELIZABETH,B,
1000 E ELM
APT 3
SPRINGFIELD 65806
TSANG,JOHN,LIEN KWEI, NS
3259 G EAST SUNSHINE
SPRINGFIELD 65804
TURNER,GLENN,OLIVER, IM
609 CHERRY
SPRINGFIELD 65606
VENSEL,LEE,HOWARD, PD
114 PROFESSIONAL BLDG
SPRINGFIELD 65806

WACHTER,RONALD,MAURICE, PTH
DEPT PATHOLOGY
COX MEDICAL CENTER
1423 N JEFFERSON
SPRINGFIELD 65604
WADDELL,KENNETH,ESTIL,
1211 S GLENSTONE
SPRINGFIELD 65804
WAKEMAN,J,NEWTON, GS
600 S GLENSTONE ST
SPRINGFIELD 65802
WAKEMAN,NEWT, ORS
1900 S NATIONAL
SPRINGFIELD 65604
WALKER,GARY, OBG
117 PROFESSIONAL BLDG
SPRINGFIELD 65806
WALKER,WM,MICHAEL, OBG
609 CHERRY ST
17 PROFESSIONAL BLDG
SPRINGFIELD 65806
WANTUCK,DONALD,K, IM
609 CHERRY
309 PROFESSIONAL BLDG
SPRINGFIELD 65604
WARRES,HERBERT,L, U
609 CHERRY ST
230 PROFESSIONAL BLDG
SPRINGFIELD 65806
WATERFIELD,JIM,RAY, IM
1211 S GLENSTONE
SPRINGFIELD 65801
WHITE,R,NED, OBG
301 MEDICAL TOWER
SPRINGFIELD 65602
WHITLOCK,C,COURTNEY, NS
405 MEDICAL TOWER
SPRINGFIELD 65802
WILSON,ROY,EDWARD, P
1211 S GLENSTONE
SPRINGFIELD 65804
WINSKY,ARLEN,DUANE, PS
506 MEDICAL TOWER
SPRINGFIELD 65802
WISE,GORDON,F, AN
229 PROF BLDG
SPRINGFIELD 65806
WITTMER,SAML,C, GS
600 S GLENSTONE ST
SPRINGFIELD 65602
WOLF,MARION,L, ORS
1211 S GLENSTONE
SPRINGFIELD 65804
WOLFE,JAMES,B, OTO
SUITE 410
PROFESSIONAL BLDG
SPRINGFIELD 65606
WONG,GEO, N
2030 S NATIONAL
SPRINGFIELD 65604
WOOLDRIDGE,WILFRED,E, D
321 PROF BLDG
SPRINGFIELD 65806
WYRSCH,LEO,M, OBG
304 PROFESSIONAL BLDG
SPRINGFIELD 65806
YANCEY,DANIEL,L, ORS
1133 S WELLER
SPRINGFIELD 65804
ZAHN,ROBT,LLOYD, PD
1900 S NATIONAL STE 1900
SPRINGFIELD 65804

## 086—HENRY

HOLLINGSWORTH,RAY,S, GP
MEDICAL BLDG HOSPITAL DR
CLINTON 64735
HUGHES,SHELBY,BOND, GP
106 S 3RD ST
CLINTON 64735
JONES,EDNA,MARTHA, OS
RT #2
DEEPWATER 64740
KING,RICHARD,HARRY, GS
HOSPITAL DR
C/O MEDICAL CLINIC
CLINTON 64735
SCOTT,KENNETH,F, FP
MED BLDG-HOSPITAL DR
CLINTON 64735
SMITH,JAMES,OMER, GP
106 S 3RD ST
CLINTON 64735
SMITH,WM,JOS, GP
103 W COLT ST
WINDSOR 65360
WELTSCHEFF,CHRISTO,A, EM
120 S MAIN
WINDSOR 65360
WETZEL,GUS,S, GS
506 S 8TH ST
CLINTON 64735

## 094—HOWARD

CRAFT,GEORGE,A, CHP
FAYETTE MEDICAL CLINIC
FAYETTE 65248
DEAN,FRANCIS,DE SALES, GP
300 N CHURCH ST
FAYETTE 65248
LEECH,MAURICE,P, GP
300 N CHURCH
FAYETTE 65248
MARSHALL,WILLIAM,GEORGE,
GLASGOW MED CTR
GLASGOW 65254
SHAW,WM,J, GP
300 N CHURCH ST
FAYETTE 65248

## 098—JACKSON

AARON,GEO, U
1515 W TRUMAN RD
INDEPENDENCE 64050
ABAQUETA,GAMALIEL,P, AN
1220 W 64TH TERR
KANSAS CITY 64113
ABDOU,NANCY,L, HEM
2411 HOLMES
KANSAS CITY 64108
ABELLA,BIENVENIDO,Z, GS
8967 E 62ND TERR
RAYTOWN 64133
ABEND,MELVIN,N, HS
6724 TROOST
KANSAS CITY 64131
ABERCROMBIE,KEITH,JAMES, U
1010 CARONDELET DR
KANSAS CITY 64114
ABRAMS,BERNARD,MARK, N
P O BOX 7252
KANSAS CITY 64113
ABRAMSON,SARA,J, R
SUITE 108
701 E 63RD
KANSAS CITY 64110
ADELMAN,ARTHUR, GS
6724 TROOST SUITE 910
KANSAS CITY 64131
ADLER,FEDERICO, ORS
6724 TROOST
300 HIGHLANDS PROF TOWER
KANSAS CITY 64131
AGEE,LOREN,G, GP
RT 1
RANTOUL KS 66079
AKS,DANL, OBG
6724 TROOST
KANSAS CITY 64131
ALBERG,MARVIN,R, OS
3525 N W 60TH TERRACE
KANSAS CITY 64151
ALDERMAN,DONALD,P, AN
3221 W 83RD ST
SHAWNEE MISSION KS 66206
ALDERMAN,THOS,FRANCIS, GS
1010 CARONDELET SUITE 120
KANSAS CITY 64114
ALLEBACH,HOBART,K B, PTH
6400 PROSPECT AVE
KANSAS CITY 64132
ALLEN,ARTHUR,AUSTIN, N
C/O DR ABRAMS & ASSOCIATES
P O BOX 7252
KANSAS CITY 64113
ALLEN,ROBT,E, GS
4320 WORNALL RD
KANSAS CITY 64111
ALSOP,WEBB,S, AN
6400 PROSPECT
KANSAS CITY 64132
ALTOMARE,EDWARD,P, AN
1030 W 6KTH ST
KANSAS CITY 64113
AMMATELLI,FRANCIS,JOS, IM
412 ST JOSEPH MEDICAL BLDG
1010 CARONDELET DR
KANSAS CITY 64114
AMOURY,RAYMOND,ANTHONY, PDS
CHILDRENS MERCY HOSPITAL
24TH & GILLHAM RD
KANSAS CITY 64106
ANDERSON,RAYMOND,B, PD
24TH GILLHAM RD
KANSAS CITY 64108
ANDRUS,BAILEY,C, PD
4400 BROADWAY
KANSAS CITY 64111
ARBAB,ALI,AKBAR, NO
751 E 63RD ST
KANSAS CITY 64110
ARMS,ARNOLD,V, IM
450 N PRYOR RD
LEE'S SUMMIT 64063
ARMS,RICHARD,A, PUD
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
ARNOLD,JOHN,DAVID, PA
5101 E 24TH ST
KANSAS CITY 64127
ARRIBAS,AURORA,ELLOSO, GP
800 N 10TH
BLUE SPRINGS 64015

ARRIBAS,ROMEO,FIRMEZA, GS
1212 LOTTRELL
BLUE SPRINGS 64015
ARSENOVIC,ALEXANDER, GP
KANSAS CITY MEDICAL CENTER
917 MC GEE ST
KANSAS CITY 64106
ASHBY,JENNIFER,D, O
TRUMAN MED CENTER
24TH AND HOLMES
KANSAS CITY 64108
ASHCRAFT,KEITH,WESLEY, POS
509 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111
ASHER,A,GRAHAM, CO
4706 BROADWAY
KANSAS CITY 64112
ASHLEY,LILLARD,GOVERNOR, IM
SUITE 505 1734 E 63RD ST
KANSAS CITY 64110
ASNANI,MITHLESH,GUPTA, PO
1408 WHITE OAK RD
ALLENTOWN PA 18104
ATWELL,FLOYD,C, OBG
4320 WORNALL RD
KANSAS CITY 64111
AVERILL,KEITH,HOWARD, CO
1010 CARONDELET DRIVE
SUITE 110
KANSAS CITY 64114
BAER,ALVIN,JULIUS, OPH
751 E 63D ST
KANSAS CITY 64110
BAILEY,HUGH,R, D
4320 WORNALL RD
KANSAS CITY 64111
BAKER,PHILIP,J, GP
9306 E NEW 40TH HWY
INDEPENDENCE 64050
BALLARD,V,BRYCE, IM
4320 WORNALL RD
KANSAS CITY 64111
BANKOTI,FERENC, R
RESEARCH MED OFF BLDG STE 216
6400 PROSPECT
KANSAS CITY 64132
BARE,CHESTER,ISAAC, PO
9406 E 63RD
KANSAS CITY 64133
BARELLI,PAT,A, OTO
2929 BALTIMORE STE 105
KANSAS CITY 64108
BARLOUN,JAMES,HENRY, OBG
6700 TROOST AVE STE 236
KANSAS CITY 64131
BARNARD,JOHN,L, ORS
4320 WORNALL RD
KANSAS CITY 64111
BARNETT,DANIEL,K, IM
12921 GRANDVIEW RD
GRANDVIEW 64030
BARNETT,GORDON,P, GP
6568 HIGH DR
SHAWNEE MISSION KS 66208
BARR,GLENN,ALLEN, GS
6724 TROOST SUITE 910
KANSAS CITY 64131
BARRY,GERALD,W, HEM
1946 E PARVIN RD
KANSAS CITY 64116
BARRY,WM,B, OTO
4320 WORNALL RD
KANSAS CITY 64111
BARTER,BRUCE, PO
8542 BROADMOOR
OVERLAND PARK KS 66212
BARTON,JEAN,CAMPBELL, PO
CHILDRENS MERCY HOSP
24TH AND GILLHAM RD
KANSAS CITY 64108
BASANTZ,FERNANDO,VICTOR, GP
11201 COLORADO
KANSAS CITY 64134
BASKA,RICHARD,EUGENE, CHN
CHILDRENS MERCY HOSP
KANSAS CITY 64108
BASS,WALTER,RICHARD, OPH
8800 E 63RD ST
RAYTOWN 64133
BATES,BARBARA, IM
9905 MASTIN DR
OVERLAND PARK KS 66212
BATTMER,ROBT,EARL, OBG
101 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111
BADER,LAFE,W, AN
4818 W 80TH
PRAIRIE VILLAGE KS 66208
BAUM,FRANK,E, OBG
6724 TROOST AVE
KANSAS CITY 64131
BAY,MERRILL,R, OM
WOODS CHAPEL RD
BLUE SPRINGS 64015

BAYER,WILLIAM,LANG, DS
4040 MAIN
KANSAS CITY 64111
BEALL,MC PHERSON,SCOTT, DRS
426 ST JOSEPH MEDICAL BLDG
1010 CARONDELET DR
KANSAS CITY 64114
BEARD,WM,JACOB, IM
8940 BLUE JACKET APT 1101
SHAWNEE MISSION KS 66214
BEATTY,ARCH,JOE, TS
917 MC GEE
KANSAS CITY 64106
BEATTY,EUGENE,CARL, PTH
24TH GILLHAM RD
KANSAS CITY 64108
BEATTY,NINA,DAWSON-REID, AN
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
BEAUCHAMP,GARY,DUANE, IM
4320 WORNALL ROAD
KANSAS CITY 64111
BECK,CALVIN,EDSEL, U
4320 WORNALL RD
KANSAS CITY 64111
BECKER,RICHARD,R, GP
5622 HOLMES ST
KANSAS CITY 64110
BECKER,ROLFE,ALLEN, OPH
601 E 63RD ST STE 513
KANSAS CITY 64110
BEEKS,JOHN,WARREN, OM
522 PROFFESSIONAL BLDG
1103 GRAND
KANSAS CITY 64106
BEHRENDS,STEVEN,HENRY, GS
1010 CARONDELET
SUITE 120
KANSAS CITY 64114
BELL,HOBERT,HARVEY, CD
4320 WORNALL RD
KANSAS CITY 64111
BELL,WM,F, GP
615 WEST 3RD STREET
LEE'S SUMMIT 64063
BENNETT,JAMES,O, IM
6700 TROOST
KANSAS CITY 64131
BENOIT,HECTOR,W, TS
4620 J C NICHOLS PKWY
KANSAS CITY 64112
BENSON,GEORGE,N, DR
2525 EUCLID
KANSAS CITY 64127
BENSON,WILLIAM,F, HS
4320 WORNALL RD
KANSAS CITY 64111
BERENSON,SHELDON,ELLIS, R
832 WEST 63RD STREET
KANSAS CITY 64113
BERGMANN,VICTOR,H, END
105 WARD PARKWAY
KANSAS CITY 64112
BERLIN,ROGER, P
751 E 63RD RD
KANSAS CITY 64110
BERNREITER,MICHAEL, CD
1246 W 63RD ST
KANSAS CITY 64113
BERRY,MAXWELL,G, IM
4320 WORNALL RD
KANSAS CITY 64111
BICKLEY,JAMES,EDWARD, OBG
326 ST JOSEPH MED BLDG
1010 CARONDELET DR
KANSAS CITY 64114
BICWELL,JO,JEANNE, P
4320 WORNALL
KANSAS CITY 64111
BIDWELL,ROBT,EDWARD G, P
4320 WORNALL RD STE 704
KANSAS CITY 64111
BIERY,RICHARD,MARTIN, GPM
K C MO HEALTH DEPT
414 E 12TH ST
KANSAS CITY 64106
BIGGS,ALFRED,DE BARD, IM
6400 PROSPECT AVE SUITE 333
KANSAS CITY 64132
BIGGS,HARRY,L, GP
1913 DUAIL TRAIL
LEE'S SUMMIT 64063
BIKALES,VICTOR,WM, P
751 E 63RD ST
KANSAS CITY 64110
BILLS,MARVIN,L, P
3309 W 68TH ST
SHAWNEE MISSION KS 66208
BINDA,ROBERT,E, AN
142 RESEARCH MEDICAL OFF BLDG
6400 PROSPECT AVE
KANSAS CITY 64132
BLACK,DON,ALVIN, IM
6400 PROSPECT ST
KANSAS CITY 64132

BLACK,EUGENE,C, DM
3201 W 6MTH ST
SHAWNEE MISSION KS 66208
BLACK,THOMAS,C, OPH
1010 CARONDELET DR
SUITE 416
KANSAS CITY 64114
BLACKWELL,CHARLES,RUFUS, AN
8825 S TENNESSEE AVE
KANSAS CITY 64138
BLIM,RICHARD,DON, PD
4400 BROADWAY
KANSAS CITY 64111
*BLUM DO,MICHAEL,A, PD
373 W 101ST TERR
KANSAS CITY 64114
BODENHAUSEN,GARY,E, FP
5801 EAST 113TH ST
KANSAS CITY 64134
BORDY,MARVIN,DEAN, PO
601 E 63RD ST
KANSAS CITY 64110
BORENSTINE,JOS, PD
601 E 63RD ST
KANSAS CITY 64110
BORSUK,GREGORY,MICHAEL, O
535 BLUE RIDGE TOWER
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
BORTNICK,EUGENE, PS
6724 TROOST AVE STE 200
KANSAS CITY 64131
BOTWIN,ARNOLD,ELLIS, GS
404 HIGHLANDS PROF TOWER
6724 TROOST
KANSAS CITY 64131
BOWSER,JOHN,F, R
4320 WORNALL NO 128
KANSAS CITY 64111
BOYD,GEO,K, IM
4320 WORNALL RD
KANSAS CITY 64111
BOYER,PHILIP,A, GER
1102 130TH ST
GRANDVIEW 64030
BOYLAN,PETER,C, ORS
6306 MORNINGSIDE DR
KANSAS CITY 64113
BRABY,HOWARD,HUGH, OBG
1515 W TRUMAN RD-STE 306
INDEPENDENCE 64050
BRADFORD,JOHN,FRANKLIN, OPH
4320 WORNALL ST
KANSAS CITY 64111
BRAMS,JACK,B, IM
601 E 63RD ST STE 508
KANSAS CITY 64110
BRAND,STANLEY,N, GE
STATLAND CLINIC
6724 TROOST-SUITE 710
KANSAS CITY 64131
BRAVERMAN,ABE,E, IM
8300 TROOST
KANSAS CITY 64131
BRICK,JEFFREY,MICHAEL, OPH
6724 TROOST STE 504
KANSAS CITY 64131
BRODKEY,MARK,JEFFREY, D
6400 PROSPECT AVE
KANSAS CITY 64132
BROOK,CHARLES,J, PDD
400 HIGHLANDS PROFESSIONAL TOW
6724 TROOST
6724 TROOST
KANSAS CITY 64131
BROOKS,WM,HENRY, R
ST LUKES HOSP
4400 WARNALL RD
KANSAS CITY 64111
BROWER,CLYDE,L, GP
1515 W TRUMAN RD
INDEPENDENCE 64052
BROWN,ADRIAN,J, GP
12 EAST 63RD ST
KANSAS CITY 64113
BROWN,ELWYN,S, AN
24TH AND GILLHAM RD
KANSAS CITY 64108
BROWN,IRWIN,S, D
RR #1
LA CYGNE KS 66040
BROWN,MENZIE,H, OR
2929 BALTIMORE AVE
SUITE 340
KANSAS CITY 64108
BROWN,ROBT,S, OBG
2929 BALTIMORE STE 200
KANSAS CITY 64108
BROWN,VIOLETA,ORTEGA, CHP
CHILDRENS MERCY HOSP
KANSAS CITY 64108
BROWNE,JON,E, ORS
6406 MORNINGSIDE DR
KANSAS CITY 64113
BRUMM,LAWRENCE,W, IM
6400 PROSPECT ST
KANSAS CITY 64132

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* Doctor of Osteopathy

BRUNER,ROBT,E, CHN
14909 LITTLE BLUE RD
KANSAS CITY 64136

BRUST,CARL,H, GS
9034 COTTONWOOD ST-APT 4
SHAWNEE MISSION KS 66215

BRYAN,WM,H, GS
3939 PROSPECT
KANSAS CITY 64130

BRYANT,T,J, IM
615 HIGHLANDS PROFESSIONAL
6724 TROOST
KANSAS CITY 64131

BUCHANAN,BARBARA,NEENAN, CHP
4400 BROADWAY
KANSAS CITY 64111

BUCKNER,ROBT,C, OBG
326 ST JOSEPH MED BLDG
1010 CARONDELET DR
KANSAS CITY 64114

BUDKE,HAROLD,A, GP
306 E 12TH ST
KANSAS CITY 64106

BUHLER,VICTOR,B, PTH
5212 BELLEVIEW
KANSAS CITY 64112

BUIE,BRUCE,RICHARD, GP
11201 COLORADO
KANSAS CITY 64137

BUNTING,WILLISTON,P, OTO
1231 W 62ND
KANSAS CITY 64113

BURRY,VIRGIL,F, PD
CHILDRENS MERCY HOSP
KANSAS CITY 64108

BUSTOS,JONAS,G, GS
1212 LUTTRELL RD
BLUE SPRINGS 64015

BUTCHER,ROBT,W, IM
7924 PASEO ST
KANSAS CITY 64131

BUTTERWORTH,NELSON,S, IM
725 W 49TH TERRACE
KANSAS CITY 64112

BYARS,STEVEN,R, OPH
6724 TROOST SUITE 202
KANSAS CITY 64131

CABANAS,JUSTO,J, P
11 BLUE RIDGE TOWER
4240 BLUE RIDGE BLVD
KANSAS CITY 64133

CAFFREY,RAYMOND,J, PTH
1314 W RED BRIDGE RD
KANSAS CITY 64114

CALDWELL,JOHN,K, IM
6700 TROOST
KANSAS CITY 64131

CALOVICH,EMERY,R, PUD
4620 J C NICHOLS PKWY
KANSAS CITY 64112

CAMACHO,HOMERO, OBG
10505 WEDD
SHAWNEE MISSION KS 66212

CAMPBELL,FREDERICK,B, CRS
315 NICHOLS RD
KANSAS CITY 64112

CAMPBELL,JOHN,G, CRS
6724 TROOST-STE 510
KANSAS CITY 64131

CANENT,RAMON,VARELA, PDC
24TH & GILLHAM RD
KANSAS CITY 64108

CAPPS,EUGENE,CLYDE, AN
7921 EL MONTE
SHAWNEE MISSION KS 66208

CARDER,GEO,ARTHUR, OTO
BLUE RIDGE TOWER STE 434
4240 BLUE RIDGE BLVD
KANSAS CITY 64133

CARLSON,HJALMAR,E, U
525 PENN PARK MED CTR
2929 BALTIMORE
KANSAS CITY 64108

CARLSON,JOHN,STEPHEN, PD
4400 BROADWAY STE 206
KANSAS CITY 64111

CARTER,JAMES,EARL, FP
1734 E 63RD ST STE 410
KANSAS CITY 64110

CARUSO,ALFRED,ANTHONY, OBG
1027 E 75TH WAY
KANSAS CITY 64131

CASE,WM,FREDERICK, OPH
416 CARONDELET MEDICAL BLDG
1010 CARONDELET DR
KANSAS CITY 64114

CASHMAN,JOHN,W, IM
2411 HOLMES
KANSAS CITY 64108

CATLETT,JACK,M, IM
4400 BROADWAY
SUITE 31
KANSAS CITY 64111

CATTANEO,ERNEST,ALLEN, IM
2929 BALTIMORE
KANSAS CITY 64108

CAVANESS,ERNEST,W, OS
1010 NEPTUNE ST
ENCINITAS CA 92024

CENTNER,PAUL,JOS, GS
2727 MAIN ST
KANSAS CITY 64108

CHANDLER,ROBT,ALLEN, PS
4177 BROADWAY
KANSAS CITY 64111

CHANDRA,MAHESH, IM
1515 W TRUMAN RD STE 301
INDEPENDENCE 64050

CHANG,DAVID,Y C, AN
101 MEMORIAL DR
KANSAS CITY 64106

CHAPMAN,DAVID,WOLFE, FP
1515 W TRUMAN RD STE 302
INDEPENDENCE 64050

CHAUDHARY,MUHAMMAD,A, GE
751 E 63RD ST STE 751
KANSAS CITY 64110

CHAUDHURI,SUDHA,TAPAN, OBG
1001 E 47TH ST
KANSAS CITY 64110

CHAUDHURI,TAPAN,KUMAR, IM
9406 E 63RD ST
KANSAS CITY 64133

CHERNOFF,SELBERT,G, IM
4601 INDEPENDENCE AVE
KANSAS CITY 64124

CHILDS,DONNALEA,STEEPLES, CHP
4400 BROADWAY
KANSAS CITY 64111

CHILDS,RICHARD,MC CLUNG, P
4320 WORNALL RD STE 452
KANSAS CITY 64111

CHOWDHURY,DIPAK, OS
17221 E 23RD ST
INDEPENDENCE 64057

CHUNG,RICHARD,TAM, IM
701 E 63RD ST
KANSAS CITY 64110

CHURCHILL,STEPHEN,WOOD, CHP
4400 BROADWAY
KANSAS CITY 64111

CIDIS,GERHARD,W, OPH
421 PLAZA MEDICAL BLDG
4620 JC NICHOLS PARKWAY
KANSAS CITY 64112

CLARK,GRANVILLE,E, PD
3716 PROSPECT
KANSAS CITY 64128

CLARK,IRVING,HOWARD, GP
2811 BLUE RIDGE
GRANDVIEW 64030

CLINE,MERLE,ARTHUR, GP
4126 ST JOHN AVE
KANSAS CITY 64123

CLOTHIER,ROBT,WIRTH, PD
17221 E 23RD STE 206
INDEPENDENCE 64057

CLOUGH,CHAS,ATHERTON, NS
4440 BROADWAY
KANSAS CITY 64111

COBB,JAMES,ROBT, GP
6320 ROCKHILL RD
KANSAS CITY 64131

COBURN,DONALD,F,
4740 ROANOKE PKWY APT 1201
KANSAS CITY 64112

COCHRANE,JOS,J, GS
2929 BALTIMORE AVE
KANSAS CITY 64108

COCKERELL,SANFORD,F, PD
11200 WINNER RD
INDEPENDENCE 64052

COFFEY,RALPH,R, GS
5211 WORNALL RD
KANSAS CITY 64112

COFFIN,THEODORE,A, OBG
1103 GRAND AVE
KANSAS CITY 64106

COHEN,HARRY,K, GP
751 E 63D ST
KANSAS CITY 64110

COHEN,LAWRENCE,S, CD
4949 ROCKHILL RD
KANSAS CITY 64110

COKINGTIN,LEOVIGILDO,C, PD
1515 W TRUMAN RD
INDEPENDENCE 64050

COLEMAN,ROBT,LEHN, PS
4231 BROOKRIDGE DR
SHAWNEE MISSION KS 66205

COLGLAZIER,MARY,C, IM
411 NICHOLS ROAD
KANSAS CITY 64112

COLLINS,JOHN,WESLEY, ORS
1734 E 63RD ST
KANSAS CITY 64110

COLOM,GEO,ANDREW, P
602 HIGHLANDS PROF TOWER
6724 TROOST
KANSAS CITY 64131

CONN,ROBT,DEAN, CD
4320 WORNALL ROAD
KANSAS CITY 64111

COPPINGER,THOS,ALEXANDER, IM
2929 BALTIMORE AVE SUITE 415
KANSAS CITY 64108

CORTNER,MARY,CATHERINE, GP
6700 TROOST ST SUITE 220
KANSAS CITY 64131

COTTON,THOS,RICHARD, OTO
2929 BALTIMORE STE 220
KANSAS CITY 64108

COWAN,GEO,ALEXANDER B, TR
6724 TROOST SUITE 407
KANSAS CITY 64131

COX,KENNETH,E, OBG
4320 WORNALL DR
KANSAS CITY 64111

COX,WM,L, A
1212 W TRUMAN RD
INDEPENDENCE 64050

CROCKER,ALBERT,MATHIEU, PD
3319A E 43RD ST
KANSAS CITY 64130

CROCKETT,JAMES,E, CD
4320 WORNALL RD
KANSAS CITY 64111

CROUCH,THOS,TINDAL, NEP
4320 WORNALL RD
KANSAS CITY 64111

CROW,MARTIN,LOUIS, PS
406 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111

CURRAN,M,DESMOND, OPH
109 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111

CURRAN,TERRENCE, OPH
4400 BROADWAY BLDG
KANSAS CITY 64111

CURTS,CALVIN,JEFFRIES, OPH
4320 WORNALL RD
KANSAS CITY 64111

CUTCLIFF,DANL,JOHN, IM
6700 TROOST
KANSAS CITY 64131

DALTON,TIMOTHY,THOS, AN
11841 OAK ST
KANSAS CITY 64114

DARNELL,DALE,EDWARD, ORS
4320 WORNALL RD
KANSAS CITY 64111

DAVIDNER,MARK,LORNE, IM
8300 TROOST
KANSAS CITY 64131

DAVIDSON,KENDRICK,CLARK, R
9009 HIGH DR
LEAWOOD KS 66206

DAVIS,DONALD,RAYMOND, GS
4320 WORNALL RD
KANSAS CITY 64111

DAVIS,HERBERT,V, PD
4400 BROADWAY
KANSAS CITY 64111

DAVIS,JACK,MANLEY, IM
6700 TROOST
KANSAS CITY 64131

DAVIS,KENNETH,ALBERT, GP
3228 EUCLID
KANSAS CITY 64109

DAVIS,W,BOB, DR
340 PENN PARK MED CENTER
2928 MAIN
KANSAS CITY 64106

DAY,CHESTER,LA VERNE, P
4706 BROADWAY
KANSAS CITY 64111

DE FEO,THEODORE,C, PTH
WORNALL RD AT 44TH ST
KANSAS CITY 64111

DE MOTT,JOHN,DRURY, P
411 NICHOLS RD
KANSAS CITY 64112

DEEKEN,JAMES,H, D
411 NICHOLS RD STE 170
KANSAS CITY 64112

DEMPSEY,HERBERT,A, GP
615 W 3RD ST
LEE'S SUMMIT 64063

DENNER,LEE,J, P
704 MEDICAL PL
KANSAS CITY 64111

DESHMUKH,MURLIDHAR,R, IM
9406 E 63RD ST
KANSAS CITY 64133

DEVINS,GEORGE,STANFORD, PUD
701 E 63RD ST
KANSAS CITY 64110

DIMOND,E,GREY, CD
2501 HOLMES ST
KANSAS CITY 64108

DIVELEY,REX,L, ORS
4320 WORNALL RD
KANSAS CITY 64111

DIXON,GEO,DAVID, R
4320 WORNALL RD
KANSAS CITY 64111

DIXON,VEWISER,LEROY, GP
2202 E 18TH ST
KANSAS CITY 64127

DLABAL,LUKE,JACOB, GP
17221 E 23RD ST STE 205
INDEPENDENCE 64057
DLABAL,LUKE,JACOB, OTO
1210 S ASH AVE
INDEPENDENCE 64052
DODGE,MARK, IM
4320 WORNALL RD STE 208
KANSAS CITY 64111
DODHIA,RATILAL,LALJI, PTH
P O BOX 2778
KANSAS CITY 64142
DOERING,ROBT,WINTER, GS
6400 PROSPECT
KANSAS CITY 64132
DUMBEK,STANLEY,J, CDS
330 PENN PARK
2929 BALTIMORE
KANSAS CITY 64108
DONOHOE,CHARLES,D, N
17221 E 23RD ST
INDEPENDENCE 64057
DORSCH,ERVIN,HUGO, GP
LAKE CITY ARMY AMMUNITION PLNT
INDEPENDENCE 64050
ODRZAB,WILLIAM,E, PTH
MENORAH MEDICAL CENTER
4949 ROCKHILL RD
KANSAS CITY 64110
DOWNEY,JAMES,WADSWORTH, GP
2929 BALTIMORE
KANSAS CITY 64108
DRAKE,ROY,F, GS
6700 TROOST
KANSAS CITY 64131
DRANEY,THOS,EDWIN, PD
6426 HOLMES
KANSAS CITY 64131
DREHER,RICHARD,L, PO
CHILDREN'S MERCY HOSP
KANSAS CITY 64108
DRISKO,ROBERT,M, ORS
2929 BALTIMORE AVE
KANSAS CITY 64108
OROWNS,BRUCE,V, D
4320 WORNALL RD
KANSAS CITY 64111
DUBIN,SOL,H, ORS
SUITE 401
1515 W TRUMAN RD
INDEPENDENCE 64050
OUER,MILOREO,CAROLYN, PO
324 E 69TH TERR
KANSAS CITY 64113
OUERKSEN,JOSEPH,JOHN, AN
4407 W 54TH TERR
SHAWNEE MISSION KS 66205
DUKSTEIN,WALTER,GEO, NM
6400 PROSPECT
KANSAS CITY 64132
OUNCAN,WM,HENRY, GS
911 MAIN ST
KANSAS CITY 64105
OUNLEAVY,JAMES,O, FP
4620 JC NICHOLS PKWY STE 427
KANSAS CITY 64112
OUNN,ROBT,PAUL, OR
SUITE 103
433 ESTUDILLO AVE
SAN LEANDRO CA 94577
OURIE,ROBT,HOWARD, PUD
2929 BALTIMORE
KANSAS CITY 64108
DURNELL,MONAFORO,DEE, FP
GOPPERT FAMILY CARE CTR
6601 ROCKHILL RD
KANSAS CITY 64131
OWYER,FRANK,XAVIER, O
4620 J C NICHOLS PKWY
KANSAS CITY 64112
DWYER,HUGH,LEO, PO
10016 MASTIN DR
SHAWNEE MISSION KS 66212
EARNEST,JAMES,BRYAN, CO
2929 BALTIMORE STE 415
KANSAS CITY 64108
EISEMANN,GUSTAVE, IM
STATLAND CLINIC
6724 TROOST SUITE 710
KANSAS CITY 64131
ELIAS,OAVIO,JULIAN, GP
9306 E NEW 40 HIGHWAY
INDEPENDENCE 64055
ELLENBOGEN,CHARLES, ID
UMKC SCHOOL OF MEDICINE
2411 HOLMES
KANSAS CITY 64108
ELLFELOT,HOWARO,J, ORS
6400 PROSPECT AVE
KANSAS CITY 64132
ELLIOTT,RAYMONO,GLENN, GP
91ST PL-STATE LINE-B WARD P B
KANSAS CITY 64114
ELLIOTT,WADE,EUGENE, GP
710 W 12TH ST
KANSAS CITY 64105

ELLIS,DAVID,LEE, GS
6724 TROOST
KANSAS CITY 64131
ELSER,OTTO,H, DPH
1515 W TRUMAN STE 303
INDEPENDENCE 64050
ENGEL,LAWRENCE,POWER, GS
6505 W 103RD
SHAWNEE MISSION KS 66212
ENGELMANN,CALVIN,ERNEST, GS
2929 BALTIMORE AVE
KANSAS CITY 64108
ENGLEMAN,REINHOLD, TS
1002 WALNUT
KANSAS CITY 64106
ERICSSON,SAML,E F, P
6724 TROOST H205
KANSAS CITY 64131
ESHELMAN,ALBERT,DALE, GP
9103 EAST 40 HIGHWAY
INDEPENDENCE 64055
EUBANK,DAVID,FURMAN, PO
9406 E 63RD ST
RAYTOWN 64133
EUBANK,DILLARD,MARION, GP
6020 ELM AVE
KANSAS CITY 64133
EUBANK,WM,Y, IM
6400 PROSPECT AVE SUITE 312
KANSAS CITY 64132
EUPRASERT,PRICHA, GS
6331 DEARBORN DR
SHAWNEE MISSION KS 66202
EVANS,JOS,CEDRIC, GS
1515 W TRUMAN RD
INDEPENDENCE 64050
EVANS,LAWRENCE,LEE, GS
4320 WORNALL
KANSAS CITY 64111
*EVERETT,JAMES,E, OBG
4 WEST DARTMOUTH RD
KANSAS CITY 64113
FAIRCHILD,ROBT,C, PD
8425 RHEINHARDT LANE
SHAWNEE MISSION KS 66206
FARAON,JOSE,BAYABO, PTH
2525 EUCLID AVE
KANSAS CITY 64127
FARNHAM,MILO,MARVIN, IM
1515 W TRUMAN RO
INDEPENDENCE 64050
FARRALES,FRANKLIN,BARRON, PTH
4040 MAIN ST
KANSAS CITY 64111
FAYEZ,JAMIL,ABDUL LATIF, END
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
FAYNE,FRED,ALBERT, P
14 DOCTORS BLDG E
751 E 63RD ST
KANSAS CITY 64110
FEOOTIN,MICHAEL,SCOTT, GE
6724 TROOST
KANSAS CITY 64131
FEE,CHESTER,F, ORS
2929 BALTIMORE AVE
KANSAS CITY 64108
FEIST,GEO,V, GP
1103 W 86TH TERR
KANSAS CITY 64114
FEIST,WM,EDGAR, IM
10618 W 98TH TERRACE
OVERLAND PARK KS 66214
FERGUSON,DONALD,S, GP
2012 E 24TH ST
KANSAS CITY 64127
FERRIS,CARYL,RAY, IM
6400 PROSPECT
KANSAS CITY 64132
FIBUCH,EUGENE,E, AN
ST LUKE'S HOSPITAL
44TH AND WORNAL RD
KANSAS CITY 64111
FINKLE,ROBERT,H, ORS
10901 WINNER RD
INDEPENDENCE 64052
FISHER,JAMES,KINGDON, OR
WORNALL RD AT 44TH
KANSAS CITY 64111
FITZ SIMMONS,JAMES,G, R
4320 WORNALL ROAD
710 MEDICAL PLAZA
KANSAS CITY 64111
FITZGERALD,ROBERT,H, ORS
8505 CHEROKEE PL
LEAWOOD KS 66206
FLATLEY,JOHN,ALLEN, GS
6700 TROOST ST
KANSAS CITY 64131
FLEMING,ALLAN,ROGER, ON
415 PENN PARK BLDG
2929 BALTIMORE
KANSAS CITY 64108
FLYNN,JAMES,MICHAEL, PTH
MEYER & PROSPECT
RESEARCH HOSP
KANSAS CITY 64132

FOLCK,WM,PAGE, OM
911 MAIN STREET
KANSAS CITY 64105
FORGUE,DONALD,R, PD
CHILDRENS MERCY HOSP
24TH & GILLHAM RD
KANSAS CITY 64108
FORMAN,LOUIS,HYMAN, P
4320 WORNALL RD
KANSAS CITY 64111
FORSYTHE,LEES,CORYELL, IM
4320 WORNALL RD
KANSAS CITY 64111
FORSYTHE,ROBT,W, NS
4320 WORNALL RD
KANSAS CITY 64111
FORTIN,FELIX,DAVID, LR
4320 WORNALL ROAD
KANSAS CITY 64111
FOUTS,DALLAS,BYRNE, IM
1515 W TRUMAN RD STE 301
INDEPENDENCE 64050
FOWLER,FRED,DU MONT, NS
4320 WORNALL RO
KANSAS CITY 64111
FOWLER,JAMES,WM, IM
502 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY 64131
FRANCISCO,CLARENCE,B, N
CHILDRENS MERCY HOSP DEPT N
KANSAS CITY 64106
FRANCO,PILAR,JUAN, CHP
1734 E 63RD
KANSAS CITY 64110
FRANK,GAEL,R, ORS
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
FRANKLIN,CURTIS,U, P
4301 MAIN STE 41
KANSAS CITY 64111
FREEMAN,JERRY,COLLINS, OTO
2929 BALTIMORE APT 220
KANSAS CITY 64108
FREIDEN,FLOYD,J, U
436 ROCKHILL MEDICAL BLDG
6700 TROOST
KANSAS CITY 64131
FRENCH,M,DEVONNE, PO
2701 E 31ST ST
KANSAS CITY 64128
FRIEDMAN,MORRIS,LOUIS, IM
601 E 60RD ST
KANSAS CITY 64110
FRITZLEN,THOS,JAMES, PTH
101 MEMORIAL DR
KANSAS CITY 64108
FUHRMAN,DONALD,LEE, D
4320 WORNALL
KANSAS CITY 64111
GADDR,FRANCISCO,A, EM
C/O ST JOSEPH HOSP EMERG RM
1000 CARONDELET DR
KANSAS CITY 64114
GAINES,ALBERT,H, GS
1734 E 63RD ST
KANSAS CITY 64110
GAINEY,HAROLD,L, OBG
4320 WORNALL RD
KANSAS CITY 64111
GAITONDE,MANGESH,RAJARAM, P
10124 LOCUST
KANSAS CITY 64131
GALBREATH,ASHFORD,MARTIN, IM
4620 JC NICHOLS PKWY-NO 507
KANSAS CITY 64112
GARO,RAYMOND,FLOYD, GS
10838 KAIBAB DR
SUN CITY AZ 85373
GARNER,JAMES,H, ORS
426 ST JOSEPH MEDICAL BLDG
1010 CARONDELET DR
KANSAS CITY 64114
GARRISON,ROY,F, PO
6400 PROSPECT AVE
KANSAS CITY 64132
GASKINS,JOHN,HAYDEN, PS
610 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
GAUTHIER,CHARLES,PETER, PTH
2316 E MEYER BLVD
KANSAS CITY 64132
GEHA,BRAHAM,JOHN, IM
7546 TROOST AVE
KANSAS CITY 64131
GEIGER,WM,A, AN
6400 PROSPECT AVE STE 142
KANSAS CITY 64132
GEMPÉL,PAUL,AUGUST, OBG
1221 BRASIE
FLOSSMOOR IL 60422
GENOVE,VIDALITA,FLORES, PTH
6505 GOODMAN
SHAWNEE MISSION KS 66202
GENTRY,ENOCH,NELSON, GS
810 W 69TH ST
KANSAS CITY 64113

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* Doctor of Osteopathy

GERMANN,DONALD,R, DR
ST LUKES HOSP
KANSAS CITY 64111
GHOLKAR,VIJAY,RANGHONATH, AN
ST LUKE HOSP
KANSAS CITY 64111
GIACOBBE,PETER,JOHN, EM
6601 ROCKHILL RD
KANSAS CITY 64131
GIBBONS,ROBT,THOS, AN
4400 WORNALL ROAD
KANSAS CITY 64111
GIBSON,DAVID,MARSH, PTH
ST LUKES HOSP
KANSAS CITY 64111
GILGORE,ALFRED,
9421 PRLUMM RD
LENEXA KS 66215
GINARDI,DONALD,EDWARD, GE
4643 WYANDOTTE
KANSAS CITY 64112
GINSBERG,NORMAN,AARON, PS
2929 BALTIMORE STE 320
KANSAS CITY 64108
GIST,WM,WILMOT, GS
9406 E 63RD ST
KANSAS CITY 64133
GIVLER,ROBT,LE ROY, PTH
RESEARCH MEDICAL CENTER
KANSAS CITY 64132
GLASER,LARRY,FORREST, ORS
6724 TROOST STE 300
KANSAS CITY 64131
GLASSCOCK,ERNEST,L, PD
6214 HIGH DR
PRAIRIE VILLAGE KS 66208
GLATTER,THOMAS,R, IM
UMKC SCHOOL OF MED
2411 HOLMES
KANSAS CITY 64108
GLAZER,MELVIN,LOUIS, IM
8300 TROOST
KANSAS CITY 64131
GOERZ,ANN,A FINKENBINDER, PD
1612 W TRUMAN
INDEPENDENCE 64050
GOERZ,ROYAL,DLN, OBG
1515 W TRUMAN ROAD
INDEPENDENCE 64050
GOETZ,KENNETH,LEE, OS
WORNALL ROAD AT 44TH STREET
KANSAS CITY 64111
GOHEEN,JOHN,RICHARD, PUD
6700 TROOST STE 244
KANSAS CITY 64131
GOLDMAN,STANLEY,L, A
7546 TROOST AVE
KANSAS CITY 64131
GOLDSICH,EDWARD, OBG
4400 BROADWAY
KANSAS CITY 64111
GOLDSTEIN,MARVIN,FRANK, GPH
6724 TROOST
504 BRYAN BLDG
KANSAS CITY 64131
GOODSON,WM,HAMMACK, IM
815 W 59TH ST
KANSAS CITY 64113
GOOLSBEE,ROBT,LEON, AN
6436 SAGAMORE
SHAWNEE MISSION KS 66208
GOTTSCH,JOSEPH,C, ORS
2929 BALTIMORE AVE
KANSAS CITY 64108
GOWDAMARAJAN,RENGASAMY, PDC
24TH & GILLHAM
KANSAS CITY 64108
GRABSKE,CHAS,FREDERICK, IM
1224 W 36TH
INDEPENDENCE 64055
GRAHAM,PATRICK,GROSVENOR, CD
4320 WORNALL RD
KANSAS CITY 64111
GRAHAM,WALLACE,HARRY, GS
304 HIGHLANDS PROF TOWER
6724 TROOST
KANSAS CITY 64131
GREEN,J,RICHARD, GS
17221 E 23RD ST
INDEPENDENCE 64057
GREENBERG,MARTIN,TAYLOR, IM
373 W 101ST TERR
KANSAS CITY 64114
GREENE,W,WALLACE, GS
4320 WORNALL RD
KANSAS CITY 64111
GRIFFIN,DONALD,RAY, AN
8728 CATALINA DR
PRAIRIE VILLAGE KS 66208
GRIFFITH,JOHN,A, GS
332 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
GROWDON,JOHN,ARTHUR, GS
6508 ABERDEEN RD
SHAWNEE MISSION KS 66208
GRUNT,JEROME,ALVIN, END
CHILDRENS MERCY HOSP DEPT PD
KANSAS CITY 64108
GUASTELLO,JOS,RICHARD, OTO
512 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
GUASTELLO,MARIO,JOS, OTO
4320 WORNALL RD
KANSAS CITY 64111
GUERRA,GASTON,G, GS
330 PENN PARK
2929 BALTIMORE
KANSAS CITY 64108
GULLETT,CHAS,CHESTER, AM
P O BOX 20007
KANSAS CITY 64195
GUNDLE,SIGMUND, P
751 E 63RD ST
KANSAS CITY 64110
GUNN,RICHARD,W, IM
1500 PROF BLDG
1103 GRAND AVE
KANSAS CITY 64106
GUPTA,B,S NAGHABHUSHANA, P
WESTERN MO MENTAL HEALTH CTR
600 EAST 22ND ST
KANSAS CITY 64108
GUSTAFSON,JON,ERIK, R
1509 TRUMAN RD
INDEPENDENCE 64050
GUTEK,EDWARD,PHILIP, PS
408 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111
HAAS,HARRY,D, IM
4320 WORNALL RD
KANSAS CITY 64111
HABIB,HENRY,N, U
232 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY 64132
HAGAR,DAVID,LEO, PL
9406 E 63RD ST
KANSAS CITY 64133
HAHN,BRUCE,H, GS
615 W 3RD ST
LEE'S SUMMIT 64063
HAHN,FREDERICK,WM, OTO
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
HAIGHT,JOHN,M, GP
3401 E 12TH ST
KANSAS CITY 64127
HAITH,EDWARD,EARL, GS
6724 TROOST
KANSAS CITY 64131
HAITH,WALTER,FILMORE, OBG
2701 E 31ST ST
KANSAS CITY 64128
HALL,JOHN,CHARLES, O
4400 BROADWAY STE 505
KANSAS CITY 64111
HALL,RALPH,RAYMOND, END
WORNALL RD AT 44TH
KANSAS CITY 64111
HALL,ROBT,TED, PD
24TH GILLHAM ROAD
KANSAS CITY 64108
HALL,THOS,BRYAN, O
612 SHAMROCK LANE
APT 310
LEE'S SUMMIT 64063
HALPERIN,PHILLIP,H, GS
601 E 63RD ST
KANSAS CITY 64110
HAMILL,ROBT,WILSON, N
236 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
HAMLIN,HOWARD,H, GS
4301 MAIN ST
KANSAS CITY 64111
HANNAH,HAMNER, CDS
MENORAH MEDICAL CENTER
4949 ROCKHILL RD
KANSAS CITY 64110
HANNAS,RALSTON,R, EM
11812 AVILA DR
KANSAS CITY 64114
HANSON,E,JEROME , NS
4320 WORNALL RD STE 328
KANSAS CITY 64111
HANSON,KARL,HERMAN, HEM
4320 WORNELL STE 212
KANSAS CITY 64111
HARDACRE,RUTH,ANNA, OS
3300 CHARLOTTE ST
KANSAS CITY 64109
HARDY,HENRY,MALCOLM, AN
6606 OVERHILL RD
SHAWNEE MISSION KS 66208
HARDY,JOHN,WILLARD, IM
7301 MISSION RD
PRAIRIE VILLAGE KS 66208
HARLESS,MORRIS,SHERMAN, OM
RT 2 BOX 8B
GALENA 65656
HARLOW,LLOYD,MATHEE, GS
2462 A BROOKLYN ST
KANSAS CITY 64127
HARRIN,WM,RALPH, U
412 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111
HARRIS,DAVID,JOS, PD
CHILDRENS MERCY HOSP
24TH AT GILLNAM RD
KANSAS CITY 64108
HARRIS,LANNY,WINSTON, ORS
6400 PROSPECT
KANSAS CITY 64132
HARRIS,WELDON,L, PD
17221 E 23RD ST
INDEPENDENCE 64057
HART,L,WAYNE, CHP
4400 BROADWAY STE 202
KANSAS CITY 64111
HARTMAN,GREGORY,LEE, IM
224 MEDICAL PLAZA
4320 WORNAL RD
KANSAS CITY 64111
HARTWIG,FREDERICK,H, GS
6400 PROSPECT AVE
KANSAS CITY 64132
HARTWIG,RAYMOND,WM, R
6546 WENONGA RD
SHAWNEE MISSION KS 66208
HAUSHEER,HERMAN,JOS, OBG
1515 W TRUMAN RD STE 306
INDEPENDENCE 64050
HAYS,LARRY,VINCENT, GS
4320 WORNALL
KANSAS CITY 64111
HAZEN,ROBT,MELVILLE, OTO
6400 PROSPECT AVE
KANSAS CITY 64132
HAZUKA,DAVID,FRANCIS, DR
10901 WINNER RD
INDEPENDENCE 64052
HEILMAN,EDWARD,JAMES, IM
6700 TROOST RM 604
KANSAS CITY 64131
HELLERSTEIN,STANLEY, PD
CHILDRENS MERCY HOSP
KANSAS CITY 64108
HELLMAN,RICHARD, IM
2411 HOLMES
KANSAS CITY 64108
HELMAN,RICHARD,GRAHAM, OBG
6540 WENONGA RD
SHAWNEE MISSION KS 66208
HEMAYA,RIZK,MISHRIKY, P
600 E 22ND ST
KANSAS CITY 64108
HENRY,CLARKE,L, CD
4320 WORNALL RD
KANSAS CITY 64111
HERDOIZA,ALFONSO,W, AN
751 E 63RD ST
KANSAS CITY 64110
HERMAN,EDWIN,MILES, R
701 E 63RD ST
KANSAS CITY 64110
HERVEY,WM,HUGH, AN
WORNALL RD AT 44TH
KANSAS CITY 64111
HERYER,JOHN,WACHTER, CRS
APT 87
10950 JEFFERSON HIGHWAY
NEW ORLEANS LA 70123
HIBBARD,BLAINE,ZOOK, IM
4320 WORNALL RD
KANSAS CITY 64111
HICKERSON,WM,HUGHES, GP
604 W MAPLE
INDEPENDENCE 64050
HIGGINS,RONALD,A, D
340 CARONDELET MED OFF BLDG
1010 CARONDELET DR
KANSAS CITY 64114
HILL,JACK,HAROLD, PTH
31ST AND WYANDOTTE STS
KANSAS CITY 64108
HINK,FREDERICK,WM, GP
10229 INDEPENDENCE AVE
INDEPENDENCE 64053
HIRSCH,JOE,E, CRS
510 PLAZA PARKWAY BLDG
4620 J C NICHOLS PKWY
KANSAS CITY 64112
HOADLEY,WM,DEAN, IM
6400 PROSPECT
KANSAS CITY 64132
HODGSON,FRANK,HARRISON, GS
4301 MAIN ST
KANSAS CITY 64111
HOECH,GEO,P, AN
6400 PROSPECT
KANSAS CITY 64132
HOEPER,SAML,DIETRICH, GP
12921 GRANDVIEW RD
GRANDVIEW 64030
HOEPER,SAMUEL,DIETRICH, IM
12921 GRANVIEW RD
GRANDVIEW 64030

HOFFMAN,JACOB,SAML, IM
751 E 63D ST
KANSAS CITY 64110
HOFFMANN,ALAN,LEO, FP
6300 EVANSTON
KANSAS CITY 64133
HOFFMANN,LEE,MARTHA, N
5017 MISSION RD
SHAWNEE MISSION KS 66205
HOLDER,THOS,MARTIN, PDS
509 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY 64111
HOLLINGER,LLOYD,ALVIN, PUD
6700 TROOST
KANSAS CITY 64131
HOLLWEG,KENNETH,CHAS, R
4320 OWRNALL RD
KANSAS CITY 64111
HOLMAN,JOS,GILBERT, A
4620 J C NICHOLS PKWY
KANSAS CITY 64112
HOLT,WALDO,S, IM
4620 J C NICHOLS PKWY
KANSAS CITY 64112
HOLTON,EDWARD,B, GP
10901 WINNER RD
INDEPENDENCE 64052
HOOK,WALLER,GRAVES, CRS
10010 EL MONTE
SHAWNEE MISSION KS 66207
HOPKINS,JAMES,PRICHARD, PS
6700 TROOST AVE
KANSAS CITY 64131
HORNSTRA,ROBIJN,KERST, P
6724 TROOST
KANSAS CITY 64131
HUANG,CHING,BOR, AN
CHILDREN'S MERCY HOSP
DEPT OF ANESTHESIOLOGY
24TH AT GILLHAM RD
KANSAS CITY 64108
HUGHES,MICHAEL,FRANCIS, OTO
409 BROADWAY MEDICAL BLDG
4400 BROADWAY
KANSAS CITY 64111
HUGHES,ROBERT,E, PD
4400 BROADWAY
KANSAS CITY 64111
HUNGATE,CARROLL,PAUL, OM
522 PROFESSIONAL BLDG
1103 GRAND AVE
KANSAS CITY 64106
HUNKELER,JOHN,DOUGLAS, OPH
230 PENN PARK BLDG
2928 MAIN
KANSAS CITY 64108
HUNT,THOS,RUSSELL, NS
6400 PROSPECT AVE
KANSAS CITY 64132
HUNTER,MARTIN,PETERS, IM
C/O MRS WILLIAM S MANN
435 W 58TH ST
KANSAS CITY 64113
HUNZICKER,WARREN,JOHN, IM
P O BOX 139
KANSAS CITY 64141
HUSE,WM,JASON, OBG
2929 BALTIMORE
KANSAS CITY 64108
HUSEMAN,RICHARD, NEP
240 PROFESSIONAL BLDG N
2700 HOSPITAL DR
KANSAS CITY 64116
HUSTON,KENT,A, RHU
4320 WORNALL RD
MEDICAL PLAZA BLDG SUITE 212
KANSAS CITY 64111
HUTSON,BRUCE,P, GP
508 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
HYDE,LAWRENCE,LAYTON, OPH
230 PENN PARK MED BLDG
2928 MAIN ST
KANSAS CITY 64108
IBARRA,GUILLERMO, P
4400 BROADWAY
KANSAS CITY 64111
INGHAM,WALTON,CHAS, GS
4320 WORNALL RD
KANSAS CITY 64111
IRVINE,JOHN,WATSON, OPH
8800 E 63RD ST
RAYTOWN 64133
IRWIG,FRED, IM
4706 BROADWAY
KANSAS CITY 64112
JACKSON,HAYWOOD,RUDOLPH, IM
3317 E 43RD ST
KANSAS CITY 64130
JACOB,WALTER,PAUL, IM
601 E 63RD ST
KANSAS CITY 64110
JACOBS,MORTON, P
6314 BROOKSIDE PLAZA
KANSAS CITY 64113

JACOBS,WALTER,HARVEY, GE
601 E 63RD ST
KANSAS CITY 64110
JAMES,OTIS,E, ORS
6306 MORNINGSIDE DR
KANSAS CITY 64113
JANSEN,ROBT, GP
440 E 66ST ST
KANSAS CITY 64131
JAZBI,BASHARAT,ULLAH, OTO
CHILDRENS MERCY HOSP
24TH & GILLHAM
KANSAS CITY 64108
JENAB,MORTEZA, CD
6601 ROCKHILL RD
BAPTIST MEMORIAL HOSPITAL
KANSAS CITY 64131
JENNETT,J,HARVEY, IM
1500 PROF BLDG 1103 GRAND AVE
KANSAS CITY 64106
JOHNSON,C,LAURENCE, U
2929 BALTIMORE
KANSAS CITY 64108
JOHNSON,DALLAS,ADAMS, O
6700 TROOST STE 304
KANSAS CITY 64131
JOHNSON,EDGAR,W, IM
1917 O BRIEN
LEE'S SUMMIT 64063
JOHNSON,GARETH,ROBT PAUL, PTH
23RD & R D MIZE RD
INDEPENDENCE 64057
JOHNSON,JAMES,S, OBS
4301 CLEVELAND
KANSAS CITY 64130
JOHNSON,JOS,EDWARD, FP
707 W MONTCREW
KANSAS CITY 64114
JOHNSON,RICHARD,LEWIS, IM
6400 PROSPECT STE 333
KANSAS CITY 64132
JOHNSON,THOMAS,W,
201 E ARMOUR BLVD
KANSAS CITY 64111
JOHNSON,THOS,MAXWELL, GS
8127 EL MONTE
SHAWNEE MISSION KS 66208
JOHNSON,WARREN,L, CD
410 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
JONAS,HARRY,S, OBG
DEPT OF OB-GYN
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
JONES,GALE,OWEN, AN
6400 PROSPECT STE 142
KANSAS CITY 64132
JONES,MARION,EDWARD, U
2462A BROOKLYN AVE
KANSAS CITY 64127
JONES,SAML,T, OPH
9915 CHEROKEE LN
SHAWNEE MISSION KS 66206
JONES,T,REID, IM
4320 WORNALL RD SUITE 624
KANSAS CITY 64111
JUSTUS,JOHN,B, IM
4620 J C NICHOLS PKWY
KANSAS CITY 64112
KAHN,MARVIN, IM
STATLAND CLINIC
6724 TROOST-SUITE 710
KANSAS CITY 64131
KANAREK,JOSEPH, PD
601 E 63RD ST
KANSAS CITY 64110
KANDT,RAYMOND,EDGAR, OPH
416 CARONDELET MEDICAL BLDG
1010 CARONDELET DR
KANSAS CITY 64114
KANTOR,JULIUS,MAX, PD
601 E 63RD ST
KANSAS CITY 64110
KANTOR,SAML, OPH
6700 TROOST
KANSAS CITY 64131
KARTUS,IRVING, P
9120 WARD PARKWAY TERR
KANSAS CITY 64114
KAUFMAN,ANDREW,BERNARD, NS
6700 TROOST AVE
KANSAS CITY 64131
KAUFMANN,HERBERT,H, OBG
6724 TROOST STE 210
KANSAS CITY 64131
KAUL,PHILIP,G, IM
4320 WORNALL RD
KANSAS CITY 64111
KAY,BILLY,F, IM
807 CLAIRBORNE
OLATHE KS 66061
KAYANAN,JOSE,CRUZ, GS
2929 BALTIMORE
KANSAS CITY 64108

KEAIRNES,HAROLD,WRENN, IM
UMKS MED SCH-2411 HOLMES
KANSAS CITY 64108
KEELER,JAMES,EDWARD, OBG
4400 BROADWAY-SUITE 302
KANSAS CITY 64111
KELLING,DOUGLAS,GEO, OM
11021 W 96TH TERR
SHAWNEE MISSION KS 66214
KELTNER,RAYMOND,D, OBG
4400 BROADWAY-SUITE 302
KANSAS CITY 64111
KENDALL,CHAS,ADDISON, IM
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
KENDALL,FORREST,H, OTO
2505 W 71ST ST
SHAWNEE MISSION KS 66208
KENDALL,MALCOLM,EUGENE, IM
6400 PROSPECT AVE
KANSAS CITY 64132
KENNARD,G,KEITH, GS
4400 BROADWAY
KANSAS CITY 64111
KENNEDY,EILEEN,D, PD
CHILDRENS MERCY HOSP
24TH & GILLHAM RD
KANSAS CITY 64108
KENNEDY,FRED,ROBT, GS
4320 WORNALL RD
KANSAS CITY 64111
KENNEDY,TIMOTHY,DRISCOLL, R
2929 BALTIMORE ST E340
KANSAS CITY 64108
KENNEY,JOHN,O, AN
751 EAST 63RD ST
KANSAS CITY 64110
KENT,BELA,KASZAS, OBG
6724 TROOST AVE
KANSAS CITY 64131
KERNODLE,JEFFERSON,D, PTH
P O BOX 2778
KANSAS CITY 64142
KERR,HAROLD,HARPER, TS
8121 NW MIAMI ST
KANSAS CITY 64152
KETTERMAN,GRACE,HORST, P
225 W 43RD ST
KANSAS CITY 64111
KETTERMAN,HERBERT,L, GP
11201 COLORADO
KANSAS CITY 64137
KETTNER,EDWARD,G, IM
1200 BRYANT BLDG
1102 GRAND AVE
KANSAS CITY 64106
KHOURY,CECILE,S, AN
10204 HOWE LANE
LEAWOOD KS 66206
KIENE,RICHARD,H, ORS
4320 WORNALL RD
KANSAS CITY 64111
KILLEN,DUNCAN,ARNOLD, TS
510 MED PLAZA BLDG
4320 WORNALL RD
KANSAS CITY 64111
KIMBALL,MERRITT,H, AN
610 E 36TH
KANSAS CITY 64109
KIMBLE,HARVEY,SIESS, AN
BOX 773
SHAWNEE MISSION KS 66201
KINDRED,LYNN,HERBERT, CD
4320 WORNALL
KANSAS CITY 64111
KING,JAY,TENBROOK, CD
4320 WORNALL RD
KANSAS CITY 64111
KINGSBURY,HELEN, AN
6415 SAGAMORE RD
SHAWNEE MISSION KS 66208
KIRCHMER,JOHN,T, TS
6724 TROOST AVE
KANSAS CITY 64131
KITCHEN,WM,MEYER, R
2929 BALTIMORE AVE
KANSAS CITY 64108
KLEIN,EDWARD,H, GS
7011 RAE AVE
PRAIRIE VILLAGE KS 66208
KNIGHT,LYLE,B, OS
108 MADISON
LEE'S SUMMIT 64063
KNOCH,H,KERMIT, OBG
328 ST JOSEPH MED BLDG
1010 CARONDELET DR
KANSAS CITY 64114
KOON,BENNY,HERMAN, FP
GOPPERT FAMILY CARE CTR
6601 ROCKHILL RD
KANSAS CITY 64131
KOONTZ,PAUL,GUTHRIE, GS
4320 WORNALL RD
KANSAS CITY 64111
KOPPERMAN,MORDECAI, DR
701 E 63RD STE 108
KANSAS CITY 64110

KOPPERS,LAWRENCE,EUGENE, END
6400 PROSPECT AVE STE 316
KANSAS CITY 64132
KORTH,WM,MARCUS, GS
6300 MIDNIGHT PASS RD VILLA 16
SARASOTA FL 33561
KOSURI,LALITHA, IM
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY 64108
KOURY,WILLIAM,C, R
4320 WORNALL RD SUITE 710
KANSAS CITY 64111
KRAFT,JACOB, GS
6700 TROSST
KANSAS CITY 64131
KRANSON,SEYMOUR,J, PD
909 W JOHSTON AVE
HEMET CA 92343
KUHN,WM,FREDERICK, OM
6247 BROOKSIDE BLVD
KANSAS CITY 64113
KUNZ,STEPHEN,ROBT, R
44TH AND WORNALL RD
KANSAS CITY 64111
KURTZ,KARL,JOHN, U
4400 BROADWAY
SUITE 412
KANSAS CITY 64111
KYGER,JOHN,E, AN
3612 BLUE RIDGE BLVD
INDEPENDENCE 64052
LALLY,JAMES,JOS, GS
4620 NICHOLS PKWY
KANSAS CITY 64112
LAMAR,ROBT,FREDERICK, OBG
PROFESSIONAL BLDG
KANSAS CITY 64106
LAMBERT,LAURA,MARIAN, GP
2900 N ATLANTIC AVE
DAYTCNA BEACH FL 32018
LAMBIE,RODGER,WM, R
701 E 63RD ST
KANSAS CITY 64110
LANOERS,BURNELL, GE
6400 PROSPECT
KANSAS CITY 64132
LANDIS,GEO,KENNETH, IM
1102 GRAND AVE
KANSAS CITY 64106
LAPI,ANGELO, PTH
101 MEMORIAL DR
KANSAS CITY 64108
LAPP,HARRY,CLEMENS, GS
612 SHAMROCK
211 VILLA I
LEE'S SUMMIT 64063
LARSEN,WM,E, HEM
2929 BALTIMORE
KANSAS CITY 64108
LATHAM,RAYMONO,W, PO
4400 BROADWAY
KANSAS CITY 64111
LAUER,OANL,JAMES, IM
236 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
LAYLE,JOHN,KENNEDY, RHU
4320 WORNALL
KANSAS CITY 64111
LAYTON,IRA,CLARE, IM
6400 PROSPECT AVE STE 316
KANSAS CITY 64132
LEE,GERALO,BEOFORO, CD
101 MERMORIAL DR
KANSAS CITY 64106
LEE,HENRY,ALBERT, R
6700 TROOST
352 ROCKHILL MED BLDG
KANSAS CITY 64131
LEE,KING,Y, OPH
6700 TROOST AVE
KANSAS CITY 64131
LEE,LARRY,EUGENE, DR
10102 GILLETTE
LENEXA KS 66215
LEE,TAE,HUNG, NEP
6400 PROSPECT
KANSAS CITY 64132
LEHNER,RICHARD,L, CO
MEDICAL PLAZA BLDG SUITE 132
4320 WORNALL RD
KANSAS CITY 64111
LEIBSOHN,JOEL,M, OPH
1515 W TRUMAN RD
INDEPENDENCE 64050
LEIFER,WM,WARREN, U
701 E 60RD ST
KANSAS CITY 64110
LENTZ,CLARK,HERBERT, OM
P O BOX 458
31ST & SOUTHWEST TWY
KANSAS CITY 64141
LENTZ,HAROLO,C, U
55TH TERR AND NOLAND RD
KANSAS CITY 64133

LEVEY,HARRY,B, OBG
310 HIGHLANDS PROFESSIONAL TOW
6724 TROOST
KANSAS CITY 64131
LEWIS,REVIS,CLIFTON, NS
PENN PARK MED BLDG STE 425
2929 BALTIMORE
KANSAS CITY 64108
LEWITTON,SOLOMON, GS
420 ROCKHILL MEDICAL BLDG
6700 TROOST
KANSAS CITY 64131
LIANG,JING,CHANG, GS
17221 E 23RD
INDEPENDENCE 64057
LICHTOR,JOS,MEYER, ORS
6724 TROOST SUITE 409
KANSAS CITY 64131
LIE,SIEN,HUIE, OBG
1020 E 75TH WAY
KANSAS CITY 64131
LINDGREN,CARLETON,JAY, P
4240 BLUE RIDGE BLVD SUITE 411
KANSAS CITY 64133
LINDQUIST,CARL,N, OM
RT 4 BOX 150
REEDS SPRING 65737
LINK,VANCE,EUGENE, FP
1515 W TRUMAN RD STE 302
INDEPENDENCE 64050
LINVILLE,HOWARO,E, GS
6700 TROOST AVE SUITE 444
KANSAS CITY 64131
LITTON,NANCY,J, PTH
SUITE 103
17221 E 23RD ST
INDEPENDENCE 64057
LIU,BEN,CHIN, OBG
310 HIGHLANDS PROFESSIONAL TOW
6724 TROOST
KANSAS CITY 64131
LLOYD,IVAN,EDWARD, GP
MUTUAL BENEFIT LIFE
P O BOX 19596
KANSAS CITY 64141
LOCKWOOD,GARY,FRANCIS, OBG
4320 WORNALL RD STE 520
KANSAS CITY 64111
LOHRENTZ,LOIS,H, AN
2800 W 50TH TERRACE
SHAWNEE MISSION KS 66205
LONG,R,STACY, FP
6601 ROCKHILL ROAD
KANSAS CITY 64131
LOPEZ-PLATA,ROBERTO, GS
701 E 63RD STREET
KANSAS CITY 64110
LORENZO-MEDINA,REMEOIOS, IM
509 W 119TH TERR
KANSAS CITY 64114
LORENZO,EDILBERTO,BATARA, CHP
1820 W 91ST PLACE
KANSAS CITY 64114
LOTUACO,GAMALIEL,GO, PS
4400 BROADWAY
KANSAS CITY 64111
LOUTZENHISER,JAMES,K, P
6400 PROSPECT
KANSAS CITY 64132
LUETJE,CHARLES,MARION, OTO
105 PENN PARK MEDICAL CTR
2929 BALTIMORE SUITE 105
KANSAS CITY 64108
LYOOON,HAROLD,RAY, GP
75TH & TROOST STS
KANSAS CITY 64131
MABEN,SAM,EOWARD, IM
9406 E 63RD
KANSAS CITY 64133
MAC GEE,EOWIN,ERNEST, NS
4440 BROADWAY
KANSAS CITY 64111
MAC INNIS,FLORENCE,E, PUD
4620 J C NICHOLS PKWY
KANSAS CITY 64112
MAC NAUGHTON,RALPH,E, R
CARONDELET RADIOLOGY INC
1010 CARONDELET DR RM 114
KANSAS CITY 64114
MAC NAUGHTON,ROBT,A, R
CARONDELET RADIOLOGY INC
1010 CARONDELET DR RM 114
KANSAS CITY 64114
MALLOUK,ALEXANDER,GEO, IM
4320 WORNALL RD STE 514
KANSAS CITY 64111
MALLOW,JAMES,EUGENE, PUD
44TH AND WORNALL ROAD
KANSAS CITY 64111
MANGELS,KENNETH,A, GP
1612 W TRUMAN RD
INDEPENDENCE 64050
MANGUM,WILLIAM,B, OTO
434 BLUE RIDGE TOWER
4240 BLUE RIDGE BLVD
KANSAS CITY 64133

MANION,THOS,SMITH, U
1515 TRUMAN RD
INDEPENDENCE 64050
MANUEL,LOUIS,CALVIN, OPH
1734 E 63RD ST
KANSAS CITY 64110
MARKS,MARK,M, CS
6537 SUMMIT ST
KANSAS CITY 64113
MARKS,MAURICE,I, GS
MENORAH MEDICAL CENTER
4949 ROCKHILL RD
KANSAS CITY 64110
MARSH,ALICE, PD
PLEASANT HILL 64060
MARSHALL,CAMERON,FIELD, OBG
8039 HOLMES
KANSAS CITY 64131
MARSHALL,HAL,E, PTH
4949 ROCKHILL RD
KANSAS CITY 64110
MARTIN,CATALINO,V, AN
101 MEMORIAL DR
ST MARYS HOSPITAL
KANSAS CITY 64108
MARTIN,CLYDE,VERNE, P
800 W 47TH ST
KANSAS CITY 64112
MASON,WAYNE,ELLIS, R
6700 TROOST STE 352
KANSAS CITY 64131
MASUCCI,JOS,MICHAEL, OM
306 E 12TH ST
KANSAS CITY 64106
MATTA,CAMILLE,S, OPH
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
MAYER,JOHN,HENRY, TS
503 PLAZA PKWY BLDG
4620 J C NICHOLS PKWY
KANSAS CITY 64112
MC AFEE,ROBT,GORDON, P
6400 PROSPECT SUITE 108
KANSAS CITY 64132
MC ALLISTER,CHARLES,K, ID
UMKC SCHOOL OF MEDICINE
2411 HOLMES
KANSAS CITY 64106
MC ANELLY,GEO,C, U
905 NORTON
KANSAS CITY 64127
MC CALLA,JOHN,PATRICK, AN
649 HUNTINGTON RD
KANSAS CITY 64113
MC CALLISTER,BEN,DEE, CO
4320 WORNALL RD
KANSAS CITY 64111
MC CANSE,ANOREW, GS
4320 WORNALL RD STE 332
KANSAS CITY 64111
MC CANSE,LYNN,R A, U
4320 WORNALL RD
KANSAS CITY 64111
MC CLANAHAN,ROBT,CECIL, IM
1102 GRANT AVENUE
KANSAS CITY 64106
MC CONAHAY,DAVID,RONSON, CO
4320 WORNALL ROAD
KANSAS CITY 64111
MC CONCHIE,JAMES,ESTIL, R
10901 WINNER RD
INDEPENDENCE 64052
MC COY,FREDERICK,J, PS
4177 BROADWAY
KANSAS CITY 64111
MC CRAY,GLEN,M, CHP
24TH & GILLHAM RDS
KANSAS CITY 64106
MC CULLOUGH,CAMPBELL, ORS
ARGYLE BLDG
306 E 12TH ST
KANSAS CITY 64106
MC OONALO,HERBERT,LEE, CDS
6700 TROOST AVE
KANSAS CITY 64131
MC DONNELL,JOHN,F, IM
4320 WORNALL RD
KANSAS CITY 64111
MC FARLAND,H,RICHARO, N
4320 WORNALL
KANSAS CITY 64111
MC FARLANO,M,OONALD, IM
4320 WORNALL RD
KANSAS CITY 64111
MC GANNON,PAUL,T, GS
6400 PROSPECT
KANSAS CITY 64132
MC GUIRE,THOS,HOOVER, OBG
4320 WORNALL RD STE 308
KANSAS CITY 64111
MC INTOSH,OONALO,EOWARO, AN
6400 PROSPECT
KANSAS CITY 64132
MC INTOSH,MICHELE,COCKERELL, PO
11200 WINNE RD
INDEPENDENCE 64052

| | |
|---|---|
| MC INTYRE,JOHN,DONALO,<br>4948 WESTWUDD RO<br>KANSAS CITY 64112 | AN |
| MC KEE,FRANK,E,<br>11201 COLORADO<br>KANSAS CITY 64137 | DPH |
| MC KEE,WALLACE,P,<br>4320 WURNALL RD<br>KANSAS CITY 64111 | 1M |
| MC KEEL,THOS,BURL,<br>615 HIGHLANO PRUF<br>6724 TRCOST<br>KANSAS CITY 64131 | IM |
| MC KNELLY,WM,VON,<br>39TH & RAINBOW BLVO<br>KANSAS CITY KS 66103 | P |
| MC LEMDRE,WILLIE,O,<br>UMKC SCHOUL OF MEDICINE<br>2411 HULMES<br>KANSAS CITY 64108 | IM |
| MC LEOD,JOHN,<br>9 E 67TH ST<br>KANSAS CITY 64113 | UPH |
| MC MILLAN,THOS,E,<br>228 RESEARCH MEO OF BLOG<br>6400 PROSPECT<br>KANSAS CITY 64132 | U |
| MC NABNEY,W,KENOALL,<br>TRUMAN MEDICAL CTR<br>2301 HOLMES<br>KANSAS CITY 64108 | TRS |
| MC NUTT,THEODDRE,L,<br>LEES SUMMIT CLINIC<br>615 W 3RD STREET<br>LEE'S SUMMIT 64063 | GP |
| MEDLICOTT,WILLIAM,J,<br>4320 WORNALL RD<br>KANSAS CITY 64111 | ORS |
| MEEGAN,ROBT,JDHN,<br>2929 BALTIMORE AVE<br>KANSAS CITY 64108 | R |
| MEHTA,SATISH,KUMAR,<br>701 E 63RD #312<br>KANSAS CITY 64110 | 1M |
| MEIKLEJDHN,OUNCAN,C,<br>2116 S STERLING<br>INOEPENOENCE 64052 | OBG |
| MELGAARO,SVEN,ROSS,<br>6601 ROCKHILL ROAD<br>KANSAS CITY 64131 | AN |
| MERVEILLE,OCTAVE,C,<br>24TH AND GILLHAM RD<br>KANSAS CITY 64108 | PD |
| METZL,KURT,<br>601 E 63RD<br>KANSAS CITY 64110 | PD |
| MEYER,PAUL,W,<br>4320 WDRNALL RO<br>KANSAS CITY 64111 | ORS |
| MILES,GEO,ULIVER,<br>4320 WORNALL RO<br>KANSAS CITY 64111 | GS |
| MILGRAM,BYRON,ALLEN,<br>6724 TROOST<br>KANSAS CITY 64131 | P |
| MILLER,CLINT,LEMUN,<br>615 W 3RU ST<br>LEE'S SUMMIT 64063 | UM |
| MILLER,GERALO,LEE,<br>2929 BALTIMORE STE 200<br>KANSAS CITY 64108 | UBG |
| MILLER,GERALD,LEE,<br>SUITE 212<br>RESEARCH MEOICAL UFFICE BLOG<br>6400 PROSPECT<br>KANSAS CITY 64132 | OBG |
| MILLER,MAX,I,<br>5620 HIGH OR<br>SHAWNEE MISSION KS 66208 | AN |
| MILLER,WILSON,HERRICK,<br>511 PLAZA PKWY BLDG<br>4620 NICHDLS PKWY<br>KANSAS CITY 64112 | 1M |
| MINNIGERDDE,LANA,K CARR,<br>2316 EAST MEYER BLVO<br>KANSAS CITY 64132 | PM |
| MINNIGERDDE,TURNER,LEWIS,<br>10950 GLEN ARBOR RO<br>KANSAS CITY 64114 | IM |
| MIR,ABOUL,RAUF,<br>1734 E 63RO ST<br>KANSAS CITY 64110 | IM |
| MITCHELL,ANOREW,O,<br>4320 WDRNALL RO<br>KANSAS CITY 64111 | U |
| MITCHELL,JUHN,DAKERS,<br>2928 MAIN ST<br>KANSAS CITY 64108 | U |
| MITCHELL,RUBT,HIESTANO,<br>410 BRYANT BLDG<br>1102 GRAND AVE<br>KANSAS CITY 64106 | OBG |
| MITRA,NIRMAL,KUMAR,<br>112TH TERR & GRANDVIEW RO<br>KANSAS CITY 64137 | PO |
| MIXSON,WM,CHAS,<br>4320 WORNALL RD<br>KANSAS CITY 64111 | OBG |
| MONTELLO,SAMUEL,A,<br>306 MEOICAL PLAZA<br>4320 WORNALL RO<br>KANSAS CITY 64111 | DBG |
| MOONEY,JUSTIN,LOEB,<br>6740 W 52ND PL<br>SHAWNEE MISSIUN KS 66202 | D |
| MOORE,OAVID,L,<br>4400 BRUADWAY<br>KANSAS CITY 64111 | |
| MOORE,JACK,DEAN,<br>4320 WORNALL RO<br>KANSAS CITY 64111 | U |
| MOORE,ROBT,A,<br>P O BOX 679<br>KANSAS CITY 64141 | OM |
| MOREAND,ARMANDD,H,<br>21 W 43RO ST<br>KANSAS CITY 64111 | GP |
| MORGAN,DAVID,BASIL,<br>4620 J C NICHOLS PKWY<br>KANSAS CITY 64112 | O |
| MORGAN,WM,RICHARD,<br>CARDNDELET MEDICAL BLDG<br>1010 CARONOELET OR-SUITE 440<br>KANSAS CITY 64114 | PS |
| MORLEY,LOUISE,ANTOINETTE,<br>4907 NEOSHO<br>SHAWNEE MISSION KS 66205 | GP |
| MDRONEY,JEAN,MARY,<br>4320 WDRNALL RD<br>KANSAS CITY 64111 | N |
| MORRIS,J,HAROLD,<br>4240 BLUE RIOGE BLVO<br>KANSAS CITY 64133 | 1M |
| MORRISDN,OONALO,HAY,<br>4545 WORNALL RD<br>KANSAS CITY 64111 | AN |
| MOSBACHER,HUGH,EDWARD,<br>919 LAKE OR CT<br>INDEPENOENCE 64055 | PS |
| MOSS,PAUL,<br>4706 BROAOWAY<br>KANSAS CITY 64112 | GE |
| MOUNTFORD,OAMON,WM,<br>9503 E 63RO ST<br>KANSAS CITY 64133 | EM |
| MUELLER,MARTIN,J,<br>11723 CENTRAL<br>KANSAS CITY 64114 | 1M |
| MULLEN,LEO,MARTIN,<br>4443 PASEO BLVD<br>KANSAS CITY 64110 | GP |
| MUNDY,WM,L,<br>4643 WYANDOTTE<br>KANSAS CITY 64112 | IM |
| MUNYAN,EARL,A,<br>17221 E 23RO SUITE 107<br>INOEPENDENCE 64057 | IM |
| MURPHY,JAMES,J,<br>EMERGENCY RODM<br>ST JOSEPH HOSPITAL<br>1000 CARONOELET DR<br>KANSAS CITY 64114 | EM |
| MURPHY,ROBT,JOHN,<br>4320 WORNALL RD<br>KANSAS CITY 64111 | O |
| MURRAY,W,LEE,<br>416 CARONOELET MEOICAL BLDG<br>1010 CARDNOELET DR<br>KANSAS CITY 64114 | OPH |
| MUTH,ROBT,GABRIEL,<br>MEYER BLVD AT PROSPECT AVE<br>KANSAS CITY 64132 | NEP |
| MYERS,ANDREW,IRWIN,<br>9786 W 101 ST TERR<br>OVERLANO PARK KS 66212 | EM |
| MYERS,GEO,HENRY,<br>1010 CARONDELET DR<br>KANSAS CITY 64114 | U |
| MYERS,JOHN,SIMEON,<br>425 HUNTINGTON RO<br>KANSAS CITY 64113 | OM |
| MYERS,ROBT,MICHAEL,<br>906 GRANO AVE<br>KANSAS CITY 64106 | GP |
| MYRON,MARK,C,<br>8300 TROOST AVE<br>KANSAS CITY 64131 | 1M |
| NAIME,MANSOUR,J,<br>136 RDCKHILL MED BLDG<br>6700 TROOST<br>KANSAS CITY 64131 | PD |
| NELSON,BENTLEY,A,<br>409 BROAOWAY MEDICAL BLDG<br>4400 BROAOWAY<br>KANSAS CITY 64111 | OTO |
| NESSELROOE,JOHN,HARVEY,<br>1515 W TRUMAN RD STE 402<br>INOEPENDENCE 64050 | GS |
| NEUMANN,JAMES,WM,<br>2929 BALTIMORE STE 215<br>KANSAS CITY 64108 | N |
| NEWKIRK,WILLIAM,L,<br>508 MEDICAL PLAZA<br>4320 WDRNALL RD<br>KANSAS CITY 64111 | EM |
| NEWMAN,ROBT,L,<br>ST LUKES HOSP<br>44TH & WDRNALL RO<br>KANSAS CITY 64111 | OBG |
| NIELSON,MICHAEL,HANS,<br>1515 W TRUMAN RO STE 306<br>INDEPENDENCE 64050 | OBG |
| NIGRO,EOWARD,RDBT,<br>ROYAL COAST CONDOMINIUM<br>2000 S OCEAN BLVD APT 3M<br>POMPANO BEACH FL 33062 | CD |
| NIGRD,JOS,ALBERT,<br>917 MC GEE<br>KANSAS CITY 64106 | OM |
| NDBACK,RICHAROSON,K,<br>UMKC SCHOOL OF MED<br>2411 HOLMES<br>KANSAS CITY 64108 | 1M |
| NOLTENSMEYER,MILTON,H,<br>3305 W 50TH TERR<br>SHAWNEE MISSION KS 66205 | AN |
| NOVAK,EOWARD,JOHN,<br>3011 BALTIMORE<br>KANSAS CITY 64108 | PM |
| O'FARRELL,THOS,PAUL,<br>6400 PROSPECT STE 240<br>KANSAS CITY 64132 | GS |
| D'HEARNE,JOHN,JOS,<br>4706 BROAOWAY<br>KANSAS CITY 64112 | P |
| O'KELL,RICHARD,TOWNSEND,<br>ST LUKES HOSP DEPT PATH<br>44TH & WORNALL RO<br>KANSAS CITY 64111 | PTH |
| O'MALLEY,JAMES,FRANCIS,<br>6700 TROOST<br>KANSAS CITY 64131 | U |
| O'NEIL,JAMES,HUGH,<br>275 TAIT TERRACE SE<br>PORT CHARLDTTE FL 33952 | GS |
| DLSON,LLOYD,CLARENCE,<br>24TH AND GILLHAM RD<br>CHILORENS MERCY HOSPITAL<br>KANSAS CITY 64108 | PD |
| OSBORNE,JERE,ORVANDO,<br>644 W 69TH TERRACE<br>KANSAS CITY 64113 | EM |
| DST,MARK,DEAN,<br>6550 B TRODST<br>KANSAS CITY 64131 | PTH |
| OSTERGAARO,DANIEL,J,<br>DULUTH FAMILY PRACTICE CENTER<br>330 NORTH 8TH AVE EAST<br>OULUTH MN 55805 | FP |
| OVERESCH,HARRY,B,<br>6400 PROSPECT AVE<br>KANSAS CITY 64132 | DRS |
| DWENS,JAMES,LOUIS,<br>416 BROADWAY MED BLDG<br>4400 BROAOWAY<br>KANSAS CITY 64111 | OBG |
| DWENS,RICHARD,L,<br>207 W 116TH ST<br>KANSAS CITY 64114 | OM |
| OWENS,ROBT,H,<br>6700 TROOST 406<br>KANSAS CITY 64131 | U |
| OZAR,MILTON,B,<br>1206 W 62NO<br>KANSAS CITY 64113 | U |
| PACK,GARY,LEE,<br>SUITE 117<br>4706 BROADWAY<br>KANSAS CITY 64112 | N |
| PADULA,RICHARD,T,<br>207 HIGHLANO PROFESSIONAL TOW<br>6724 TRODST<br>KANSAS CITY 64131 | TS |
| PAKULA,SIONEY,F,<br>P D BOX 8552<br>10839 STATE LINE RD<br>KANSAS CITY 64114 | PO |
| PARELMAN,ALLEN,GRDVER,<br>6724 TROOST AVE #303<br>KANSAS CITY 64131 | OPH |
| PARKER,HUBERT,M,<br>2929 BALTIMORE SUITE 435<br>KANSAS CITY 64108 | CO |
| PARSONS,EUGENE,D,<br>145 STATE LINE KENNETH RD<br>STANLEY KS 66223 | GS |
| PAWSAT,JOHN,E,<br>720 MEDICAL PLAZA<br>4320 WORNALL RO<br>KANSAS CITY 64111 | ORS |
| PAYNE,JDSEPH,R,<br>4460 RDCKHILL TERR<br>KANSAS CITY 64110 | EM |
| PEARSDN,PAUL,ERNEST,<br>5820 HDWE DR<br>SHAWNEE MISSION KS 66205 | AN |
| PECDRARO,ANTHDNY,PAUL,<br>4400 BROAOWAY<br>KANSAS CITY 64111 | PO |
| PEETE,OON,CARLOS,<br>3717 BELLEVIEW<br>KANSAS CITY 64111 | CD |

PELEGRIN,ROBT,JOS, U
1515 W TRUMAN RD
INDEPENDENCE 64050
PEMBERTON,LOARN,BEATY, GS
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY 64108
PENNER,STANLEY, PD
60I E 63RD ST
KANSAS CITY 64IID
PERICO,CARLOS,JOSE, GP
6855 W 52ND PL APT 2B
SHAWNEE MISSION KS 66202
PERLL,MAURICE,F, ORS
426 ST JOSEPH MEDICAL BLDG
1010 CARONDELET DR
KANSAS CITY 64114
PERLL,RITA,DOBEL, P
600 E 22ND STREET
KANSAS CITY 64108
PETERSEN,EUGENE,GEO, R
108 HACKBERRY
LEE'S SUMMIT 64063
PETERSON,BONITA,JEANNE, PTH
4525 HOLLY
KANSAS CITY 64111
PETERSON,CARL,MC KEE, GS
2701 E 31ST ST
KANSAS CITY 64128
PETERSON,JAY,T, IM
4320 WORNALL RD
SUITE 216
KANSAS CITY 64111
PETERSON,WALTER,RICHARD, GS
2701 E 31ST ST
KANSAS CITY 64128
PETIT PAZOS,CARLOS,A, GS
402D J C NICHOLS PKWY
KANSAS CITY 64112
PETRY,EZRA,LUTHER, GP
13740 W 90TH PL APT 1
LENEXA KS 66215
PFEFFER-HURWITZ,JUDITH, CHP
CHILDRENS MERCY HOSPITAL
24TH AND GILLHAM RD
KANSAS CITY 64108
PICKARD,NICHOLAS,STARK, ORS
6210 HIGH DR
SHAWNEE MISSION KS 66208
PICKERING,LEE,IRVING, IM
1515 W TRUMAN ROAD
INDEPENDENCE 64050
PIEBENGA,LARRY,WM, OPH
4400 BROADWAY
KANSAS CITY 64111
PIEPERGERDES,LARRY,G, OPH
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
PINKERTON,JOS,A, GS
4320 WORNALL ROAD
KANSAS CITY 64111
PINSKER,OSCAR,T, OTO
HIGHLANDS PROF TOWER
6724 TROOST
KANSAS CITY 64131
PIPER,DONALD,K, ORS
426 ST JOSEPH MED BLDG
1010 CARONDELET DR
KANSAS CITY 64114
PIPKIN,GARRETT, ORS
R R #2
CLINTON 64735
PITIYANUVATH,TASANAPORN, PD
625 EUCLID
KANSAS CITY 64124
PLACE,KENNETH,CRAIG, OPH
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
POLITI,GREGORY,BRUNO, AN
31ST & WYANDOTTE
KANSAS CITY 64108
POLLAK,ERICH,W, GS
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY 64108
POLLOCK,LEO,HOWARD, GS
751 E 63RD ST
KANSAS CITY 64110
POONAWALA,HUSENI,E, CHP
4400 BROADWAY SUITE 202
KANSAS CITY 64111
POPE,CHAS,HENRY, PTH
8600 E 63RD ST STE 300
KANSAS CITY 64133
PORTER,LOUIS, AN
751 E 63RD ST
KANSAS CITY 64110
PORTER,MICHAEL,JOS, AN
751 E 63RD ST
KANSAS CITY 64110
POSTMA,GEORGE,S, IM
373 W 101ST TERRACE
KANSAS CITY 64114
POTTER,LEE,GEO, OBG
2207 RED BRIDGE TERR
KANSAS CITY 64131
POTTS,DONALD,A, FP
1515 W TRUMAN RD NO 504
INDEPENDENCE 64050
POWELL,ALAN,EDWARD, PD
17221 E 23RD ST
INDEPENDENCE 64057
POWELL,NELSON,EDGAR, PTH
ST LUKES HOSP PATH DEPT
44TH & WORNALL RD
KANSAS CITY 64111
PRINTZ,JOS,HAROLD, GS
601 E 63RD ST
KANSAS CITY 64110
PRINTZ,OTTO,J, GS
601 E 63RD ST
KANSAS CITY 64110
PROSTIC,EDWARD,JOEL, ORS
601 E 63RD
KANSAS CITY 64110
PRYOR,HAROLD,JOE, PM
RESEARCH HOSPITAL
MEYER AND PROSPECT
KANSAS CITY 64132
PUCCI,GREGORY,LOUIS, NS
1010 CARONDELET DR
SUITE 101
KANSAS CITY 64114
PUGH,RICHARD,GEO, PD
1612 W TRUMAN RD
INDEPENDENCE 64050
QUER,ERICH,ALFRED, GS
6400 PROSPECT AVE
KANSAS CITY 64132
RACELA,ANTONIO,S, PTH
ST JOSEPH HOSP
1000 CARONDELET DR
KANSAS CITY 64114
RADER,ADA,E BRAINARD, GP
13414 LOCUST ST
KANSAS CITY 64145
RAICH,ROBT,ANDERSON, IM
4320 WORNALL RD RM 440
KANSAS CITY 64111
RAMEY,EHRET,O, OBG
4320 WORNALL AVE
KANSAS CITY 64111
RAMOS,AMERICO,GONZALEZ, TS
348 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY 64131
RAMOS,ROCHE,P, PTH
KC COLLEGE OF OST MED CHS
2105 INDEPENDENCE BLVD
KANSAS CITY 64124
RANNIE,PAUL,R, AN
709 S FULLER ST
INDEPENDENCE 64050
RAU,JEROLD, D
315 NICHOLS RD SUITE 235
SUITE 235
KANSAS CITY 64112
RAVIS,MARK,STEVEN, GP
616 E 63RD ST
KANSAS CITY 64110
RECTOR,JOE,LEE, TR
ST LUKES HOSPITAL
44TH & NICHOLS PKWY
KANSAS CITY 64111
REDDIN,JACK,LEE, IM
17221 E 23RD ST STE 209
INDEPENDENCE 64057
REED,WM,ALLEN, TS
4320 WORNALL RD
KANSAS CITY 64111
REINHARDT,G,ROBT, GS
226 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY 64132
REISS,JEANNE,E LEICK, OS
P O BOX 7252
KANSAS CITY 64113
REISTER,DOROTHY,DAILEY, PD
5201 W 84TH
SHAWNEE MISSION KS 66207
REISTER,PHILIP,O, GP
701 E 63RD STE 211
KANSAS CITY 64110
RENGACHARY,DHANALAKSHMI, OBG
210 SPRUCE
LEE'S SUMMIT 64063
REYNOLDS,CLARENCE,CROSBY, IM
1734 E 63RD ST
SUITE 605
KANSAS CITY 64110
REYNOLDS,JAMES,D H, GE
4320 WORNALL RD
KANSAS CITY 64111
RHODES,ANDREW,JAMES, NS
SUITE 503
1515 W TRUMAN RD
INDEPENDENCE 64055
RHODES,PHILIP,GLEN, PD
24TH & GILLHAM RD
KANSAS CITY 64108
RICCI,WALTER,FRANCISCO, P
6724 TROOST
KANSAS CITY 64131
RICE,BERNARD,F, IM
2411 HOLMES
KANSAS CITY 64108
RICHANY,SHAFIK,FOUAD, PTH
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
RICHARDSON,MARION,W, OBG
2526 PROSPECT
KANSAS CITY 64127
RICHERT,ROBT,C, PTH
504 W 96TH ST
KANSAS CITY 64114
RIEKHOF,PAUL,LANDON, OBG
4320 WORNALL RD
KANSAS CITY 64111
RILEY,J,PATRICK, R
PARTHENON AR 72666
RILLER,LOWELL,E, ORS
1600 PROFESSIONAL BLDG
1103 GRAND AVE
KANSAS CITY 64106
RIPPEY,JOHN,HOLDEN, PTH
WORNALL RD AT 44TH ST
KANSAS CITY 64111
ROBB,CHRISTINE,ALTON, GP
1109 S LINCOLN AVE
URBANA IL 61801
ROBERTS,FRED,F, PDR
DEPT OF RADIOLOGY
ST JOSEPH HOSP
1000 W CARONDELET DR
KANSAS CITY 64114
ROBERTS,GROSVENOR,G, OM
777 N BLUE PKWY
LEE'S SUMMIT 64063
ROBERTS,HAROLD,MOORE, IM
4618 WARWICK
KANSAS CITY 64112
ROBINETT,WADE,VERNON, OTO
6700 TROOST STE 616
KANSAS CITY 64131
ROBINSON,ARTHUR,WEAVER, IM
4320 WORNALL RD
KANSAS CITY 64111
ROBINSON,ERNEST,KIP, GS
1015 W 58TH TERR
KANSAS CITY 64113
ROBINSON,WM,J, P
9931 LEE CIRCLE
LEAWOOD KS 66206
ROBLES,LUIS,H, IM
SUITE 107
7546 TROOST
KANSAS CITY 64131
RODGERS,GEO,H, U
232 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY 64132
RODGERS,SAML,U, OS
2701 E 31ST ST
KANSAS CITY 64128
ROFAIL,AMIN,ABDELMESIH, AN
9206 ENGLAND
SHAWNEE MISSION KS 66212
ROGERS,ROBT,LEE, OTO
6724 TROOST AVE STE 200
KANSAS CITY 64131
*ROMITO,ANTHONY,J, GP
5529 TROOST
KANSAS CITY 64110
ROSE,CHAS,WM, GP
334 S VAN BRUNT BLVD
KANSAS CITY 64124
ROSENBERG,ISAC, PD
310 W 47TH ST
KANSAS CITY 64112
ROSS,ROBERT,M, IM
373 W 101ST TERR
KANSAS CITY 64114
ROTH,ALFRED,DONALD, AN
100 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY 64131
ROZEN,JAY,IRVING, R
6400 PROSPECT
KANSAS CITY 64132
RUBIN,HARVEY,PAUL, CD
701 E 63RD ST STE 308
KANSAS CITY 64110
RUBNITZ,LEON,HARLAN, AN
751 E 63RD STE 12
KANSAS CITY 64110
RUFE,JOHN,ROBERT, OPH
4500 BROADWAY
KANSAS CITY 64111
RUSSELL,JAMES,L, TS
330 PENN PARK BLDG
2929 BALTIMORE
KANSAS CITY 64108
RUSSELL,ROBT,K, FP
8933 ROSE LANE
KANSAS CITY 64133
RUTHERFORD,BARRY,DOUGLAS, IM
4320 WORNALL RD
410 MEDICAL PLAZA
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SABATES,FELIX,NABOR, OPH
110 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY 64131
SAFERSTEIN,A,LESTER, AN
751 E 63RD ST
KANSAS CITY 64110
SAFLEY,THOS,JENRY, GS
17221 E 23RD ST
INDEPENDENCE 64057
SALADINO,ANTHONY, GP
2009 W 67TH ST
SHAWNEE MISSION KS 66208
SALOANA,DAHLIA, IM
9103 E 40TH HWY
INDEPENDENCE 64055
SALDANA,DAHLIA,S,
9103 E 40 HIGHWAY
INDEPENDENCE 64055
SAMUELSON,EDWARD,A, FP
4620 NICHOLS PKWY
KANSAS CITY 64112
SANDERS,DONALD,CLAUDE, P
411 NICHOLS RD
KANSAS CITY 64112
SANOERS,HARMON,U, OPH
115 HUMPHREY ST
GREENWOOD MS 38930
SANDERS,WM,FREDERICK, IM
411 NICHOLS RD
KANSAS CITY 64112
SANDOW,THEODORE,L, DRS
4320 WORNALL RO
KANSAS CITY 64111
SANTORD,CARLOS,G, GS
1103 WESTPORT RO
KANSAS CITY 64111
SANTOS,SIMON,B, GS
MENORAH MED CTR
OEPT SURGERY
KANSAS CITY 64110
SAUER,GORDON,CHENOWETH, D
6400 PROSPECT
KANSAS CITY 64132
SCALES,MARGARET,B, PTH
6550 C TROOST
KANSAS CITY 64131
SCHAERRER,WM,CHAS, CRS
4320 WORNALL RD
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SCHAFERMEYER,ROBERT,W, GP
CHILDRENS MERCY HOSPITAL
24TH & GILHAM
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SCHIFFMACHER,JACK,E, R
4517 W 65TH ST
PRAIRIE VILLAGE KS 66208
SCHILLIE,GENE,AGUSTUS, OBG
6400 PROSPECT ST
KANSAS CITY 64132
SCHLOZMAN,DANL,LEE, PUD
6724 TROOST AVE STE 400
KANSAS CITY 64131
SCHOOLMAN,ARNOLO, NS
6700 TROOST
KANSAS CITY 64131
SCHOTTMAN,GERHARD,W, R
44TH ANO NICHOLS PKWY
KANSAS CITY 64111
SCHUMAN,NORVIN,OEAN, PTH
MEYER BLVO AT PROSPECT
KANSAS CITY 64132
SCHUTZ,CARL,H BRYANT, GS
841 SAN PABLO OR
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SCHWEGLER,ROBERT,G, OR
128 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
SCOTT,JOHN,EVERETT, OR
117 TEAKWOOO
LEE'S SUMMIT 64063
SEELY,CLARK,WORKMAN, PD
3000 W 68TH ST
SHAWNEE MISSION KS 66208
SEIOEN,GERALD,DAVID, OTO
6724 TROOST
KANSAS CITY 64131
SEITZ,ELSON,FREORICK, PTH
1509 W TRUMAN RO CLINICAL LAB
INOEPENDENCE 64050
SELLS,KENNETH,JAMES, FP
2929 BALTIMORE STE 310
KANSAS CITY 64108
SESHUMURTY,VIMALA, PO
2310 E LINWOOD BLVD
KANSAS CITY 64109
SHALET,MALCOLM,FREDRIC, IM
6724 TROOST AVE STE 500
KANSAS CITY 64131
SHALLEY,JACK,EDWARD, P
4240 BLUE RIDGE BLVD STE 500
KANSAS CITY 64133

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P O BOX 1441
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SHEAHON,JOHN,A, OBG
6700 RAYTOWN RD
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601 E 63RD ST
KANSAS CITY 64110
SHEEHAN,MICHAEL,B, PD
628 GREENWAY TER
KANSAS CITY 64113
SHELDEN,RUSSELL,D, AN
816 W 58TH TERRACE
KANSAS CITY 64113
SHIFRIN,ALEXANDER, IM
6700 TROOST AVE
KANSAS CITY 64131
SHOCKLEY,CLARENCE,JOHN, OBG
615 W 3RD ST
LEE'S SUMMIT 64063
SHUEY,HERBERT,HENRY, IM
3 E GREGORY ST
KANSAS CITY 64114
SIEGEL,CARL,O, GP
11116 GLENARBER TERR
KANSAS CITY 64114
SIMMONS,DONALD,D, P
4301 MAIN ST STE 14
KANSAS CITY 64111
SIMMONS,JOHN,L, U
6400 PROSPECT
KANSAS CITY 64132
SIMON,SANFORD, GS
751 E 63RD ST STE 266
KANSAS CITY 64110
SINCLAIR,RICHARD,HART, OBG
4320 WORNALL RD STE 308
KANSAS CITY 64111
SINGLETON,CHARLES,M, IM
4320 WORNALL RD STE 624
KANSAS CITY 64111
SINGLETON,JOHN,MILTON, IM
4400 BROADWAY SUITE 310
KANSAS CITY 64111
SIRRIOGE,MARJORIE,J S, IM
2411 HOLMES
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SIRRIDGE,WM,THOS, IM
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
SKILLMAN,ROBT,K, HEM
4320 WORNALL RD
KANSAS CITY 64111
SKINNER,JOHN,THOS, GP
1102 GRAND AVE
KANSAS CITY 64106
SLANKARO,J,EDWARD, OBG
4320 WORNAL RD
KANSAS CITY 64111
SLENTZ,EOWIN,L, IM
4320 WORNALL RO
KANSAS CITY 64111
SLENTZ,WM,A, IM
4320 WORNALL RO
KANSAS CITY 64111
SLICKMAN,ROBT,A, OBG
2929 BALTIMORE
KANSAS CITY 64108
SMITH,ARTHUR,BREMNER, R
6400 PROSPECT
KANSAS CITY 64132
SMITH,ELBERT,ESTELL, PO
4400 BROADWAY
KANSAS CITY 64111
SMITH,HUBERT,E, IM
5104 E 24TH ST
KANSAS CITY 64127
SMITH,IRA,T, U
6400 PROSPECT ST
KANSAS CITY 64132
SMITH,JAMES,MICHAEL,
641 W 39TH ST SUITE 106
KANSAS CITY 64111
SMITH,KATHERINE,A WILSON, PO
411 NICHOLS RD
KANSAS CITY 64112
SMITH,OTHELLO,O, PTH
6550-C TROOST
KANSAS CITY 64131
SMITH,THOMAS,H, R
CHILDRENS MERCY HOSPITAL
24TH & GILLHAM
KANSAS CITY 64106
SMITH,WALLACE,B, OPH
3611 SOUTH OELAWARE
INDEPENOENCE 64055
SMULL,NEO,W, OS
24TH GILLHAM RO
KANSAS CITY 64106

SNEIO,PHILIP, D
701 E 63RO ST ROOM 101
KANSAS CITY 64110
SNIOER,WILBUR,RAY, GS
TRUMAN MEOICAL CTR
2301 HOLMES
KANSAS CITY 64108
SOPER,MICHAEL,R, IM
373 W 101ST TERR
KANSAS CITY 64114
SOPER,STEVEN,JOHN, P
1505 W TRUMAN RD
INOEPENOENCE 64050
SPAFFORD,ALLEN,LEO, IM
315 NICHOLS RD
KANSAS CITY 64112
SPALDING,WILBER,B, OPH
2928 MAIN ST
KANSAS CITY 64108
SPENCER,DONALD,M, ORS
4240 BLUE RIDGE BLVO
KANSAS CITY 64133
SPIES,BARBARA,CALDERWOOO, GP
11201 COLORADO
KANSAS CITY 64134
SPURNEY,JOE,ELDON, GP
11201 COLORADO
KANSAS CITY 64137
SPURNY,OTTO,MARIA, IM
6400 CHERRY
KANSAS CITY 64131
STAAB,GERALD,EDWIN, OR
6700 TROOST
KANSAS CITY 64131
STACEY,WALLACE,R, OBG
2116 S STERLING
INOEPENOENCE 64052
STAGGS,WM,ANDREW, U
2929 BALTIMORE AVE STE 335
KANSAS CITY 64108
STANLEY,JOHN,HARLAN, CHP
4400 BROAOWAY
KANSAS CITY 64111
STATLAND,HARRY, IM
STATLANO CLINIC
6724 TROOST-SUITE 710
KANSAS CITY 64131
STATLAND,MORRIS, IM
STATLAND CLINIC
6724 TROOST-SUITE 710
KANSAS CITY 64131
STEEL,MAXWELL,W, IM
P O BOX 1159
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KANSAS CITY 64141
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411 NICHOLS RD STE 212
KANSAS CITY 64112
STELLE,CHAS,W, DM
10440 CONSER
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STELMACH,WALTER,J, FP
5252 SUNSET DR
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STEPHENS,JACK,DOUGLAS, AN
751 E 63RD ST
KANSAS CITY 64110
STERN,THOS,L, FP
1740 W 92NO ST
KANSAS CITY 64114
STEWART,HARRY,ARTHUR, P
4706 BROADWAY STE 105
KANSAS CITY 64112
STOCKTON,RAYMOND,W, U
4320 WORNALL RD
KANSAS CITY 64111
STOCKWELL,ARTHUR,LLOYO, U
OIVISION OF UROLOGY
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
STOUT,CARL,N, OPH
701 BLUE RIOGE TOWER
4240 BLUE RIOGE
KANSAS CITY 64133
STRATEMEIER,EOWARO,H, R
31ST ANO WYANOOTTE
KANSAS CITY 64108
STRAUSS,CARL,FLORSHEIM, IM
8300 TROOST AVE
KANSAS CITY 64131
STRIBLING,THOS,LLOYD, OBG
2116 STERLING AVE
INDEPENDENCE 64052
STROMBERG,ERIC,DECATUR, AN
6400 PROSPECT AVE
KANSAS CITY 64132
STUBER,JACK,LAWRENCE, DR
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
SUODARTH,STERLING,BAKER, PD
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
SULIT,ARNULFO,P, IM
101 MEMORIAL DR
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2310 E LINWOOD BLVD
KANSAS CITY 64109
SUTTON,RICHARO,L, O
3203 W 63RD TERRACE
SHAWNEE MISSION KS 66206
SWISHER,ROBT,CHALMERS, R
600 LILAC LN
SACRAMENTO CA 95825
SZABAODS,ERNEST,O, CRS
17221 E 23RD ST
INDEPENDENCE 64057
TAKAHASHI,HIROAKI, PO
THE CHILDREN'S MERCY HOSP
24TH AT GILLHAM RD
KANSAS CITY 64108
TALBOTT,LAWRENCE,B, PTH
12012 FAIRWAY
SHAWNEE MISSION KS 66209
TAMBLYN,M,CLAIRE L, AN
3515 W 63RD ST
PRAIRIE VILLAGE KS 66208
TAPUZ,JAIME,TABIOS, AN
600 EAST 8TH ST
KANSAS CITY 64106
TARSON,SOLOMON,S, OS
5511 W 85TH ST
SHAWNEE MISSION KS 66207
TASKER,CHAS,B, AN
11083 BURNTWOOD DR
SUN CITY AZ 65351
THALBLUM,HARVEY, DR
6400 PROSPECT STE 216
KANSAS CITY 64132
THEEL,OTTO,WM, GP
4301 MAIN ST
KANSAS CITY 64111
THIELE,GEO,HENRY, CRS
121 W 46TH ST APT 705
KANSAS CITY 64112
*THOMAS-RICHARDS,JOSE,R, ORS
2301 HOLMES
TRUMAN MEDICAL CENTER
KANSAS CITY 64108
THOMAS,CHRISTOPHER,Y, GS
4320 WORNALL RD
KANSAS CITY 64111
THOMPSON,CHAS,L, IM
4320 WORNALL RD SUITE 530
KANSAS CITY 64111
THRONE,BENNIE,JOE, TR
6724 TROOST STE 407
KANSAS CITY 64131
THRONE,ELIAS,M, PM
RESEARCH MEDICAL CENTER
KANSAS CITY 64132
TICE,WAYNE,KILMER, R
3626 BLUE JACKET DRIVE
LEE'S SUMMIT 64063
TILLEMA,DAVID,A, ORS
6306 MORNINGSIDE DR
KANSAS CITY 64113
TIOJANCO,MILAGROS,E L, AN
11807 WASHINGTON
KANSAS CITY 64114
TIOJANCO,REYNALOO,ROQUE, GP
5801 EAST 113TH STREET
KANSAS CITY 64134
TITTERINGTON,FRANK,W, IM
236 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
TOKRISNA,APHIRAKS, IM
10901 WINNER RD
INDEPENDENCE 64052
TOTTEN,FREOERICK,E, IM
9331 HAYES DR
SHAWNEE MISSION KS 66212
TOUBES,OANIEL,BENJAMIN, IM
6300 TROOST ST
KANSAS CITY 64131
TRIMBLE,GEO,X, IM
101 MEMORIAL DR
KANSAS CITY 64108
TROEH,MELVIN,RICHARO, IM
1515 W TRUMAN RD STE 301
INDEPENDENCE 64050
TROWBRIDGE,BARNARD,C, OTO
415 E 63RD ST
KANSAS CITY 64110
TROWBRIOGE,ELLSWORTH, P
18435 101ST DR
SUN CITY AZ 85373
TUOHY,GERALD,FRANCIS, AN
44TH & WORNALL RD
KANSAS CITY 64111
TURANO,WM,LEONARD, OBG
6700 RAYTOWN RD
RAYTOWN 64133
TURNER,RONALD,MERLE, GS
1515 W TRUMAN RD STE 402
INDEPENDENCE 64050
TUTERA,DOMINIC,FRANK, OBG
4400 BROADWAY
KANSAS CITY 64111

TWIN,EDWARO,J, GE
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY 64108
TWYMAN,RICHARO,ALLEN, GS
DEPT OF MEDICAL EDUCATION RES
ST LUKES HOSP
44TH & WORNALL
KANSAS CITY 64111
UNDERWOOD,OICK,H, OPH
6700 TROOST AVE STE 624
KANSAS CITY 64131
UPSHER,ALBERT,E, PTH
BOX 2778
KANSAS CITY 64142
VALENTINE,JOHN,O,
MENORAH MEDICAL CENTER
4949 ROCKHILL RD
KANSAS CITY 64110
VALINS,EUGENE, P
601 E 63RD ST
SUITE 309
KANSAS CITY 64110
VAN EIBER,JAMES,T, PD
1612 W TRUMAN RD
INDEPENDENCE 64050
VAN BUSKIRK,TERRANCE,E, GP
5246 ST JOHN AVE
KANSAS CITY 64123
VAN EUSKIRK,WM,CLAYTON, GS
6700 TROOST SUITE 306
KANSAS CITY 64131
VAUGHN,JAMES,W, P
411 NICHOLS RD-STE 206
KANSAS CITY 64112
VENEGONI,ROBT,LOUIS, AN
6700 TROOST
KANSAS CITY 64131
VERA,ENRIQUE, P
6724 TROOST
KANSAS CITY 64131
VERGARA,GERARDO,GETALADA, PTH
31ST & WYANOOTTE
KANSAS CITY 64106
VICTOR,FRANK,RITCHIE, R
701 E 63RD
KANSAS CITY 64110
VIOALS,VICTOR,G, GS
1010 CARONOELET-SUITE 120
KANSAS CITY 64114
VILLANUEVA,ANGELA,A, PTH
OLATHE COMM HOSP
300 S RODGERS RD
OLATHE KS 66061
VINCENT,JACK,C, IM
2003 W 67 TER
SHAWNEE MISSION KS 66208
VIROEN,HERBERT,HUGHES, OR
6700 TROOST AVE
KANSAS CITY 64131
VIRIL,LEONARDO,CAPILI, GE
4706 BROADWAY
KANSAS CITY 64112
VOGEL,ARTHUR,PAUL, AN
2215 DRURY LANE
SHAWNEE MISSION KS 66208
VOLK,GEO,EOWARO, OBG
4320 WORNALL RD
KANSAS CITY 64111
VOTH,HAROLO,W, IM
4320 WORNALL RD
KANSAS CITY 64111
WADOELL,THOMAS,H, R
710 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY 64111
WADE,FREOERICK,ELLSWORTH, OPH
PROFESSIONAL BLDG
1103 GRAND AVE
KANSAS CITY 64106
WAECKERLE,JOSEPH,F, EM
TRUMAN MED CENTER
2301 HOLMES
KANSAS CITY 64108
WAGNER,PAUL,JACOB, AN
GREENWILLOW FARM RT 1
GREENWOOD 64034
WAKEFIELD,FRANKLIN,H, GP
13065 100TH DR
SUN CITY AZ 85351
WALDMAN,RICHARO,ALAN, PO
24TH & GILLHAM RD
KANSAS CITY 64108
WALDMAN,TERRY,I, AN
751 E 63RD ST
KANSAS CITY 64110
WALKER,JAMES,CHAS, GP
609 E 96TH ST
KANSAS CITY 64131
WALKER,ORVILLE,CHAS, PO
1515 W TRUMAN RD
INDEPENDENCE 64050
WALL,HARRY,CHAS, A
751 E 60RD ST STE 250
KANSAS CITY 64110
WALL,LEONARO,A, OBG
5011 NEOSHO
SHAWNEE MISSION KS 66205

WALLY,JOHN,WM, EM
4320 WORNALL RD-STE 508
KANSAS CITY 64111
*WASSERMAN,GARY,SETH, PD
CHILDRENS MERCY HOSP DEPT MED
24TH & GILLHAM RD
KANSAS CITY 64106
WATERS,JEFFREY,A, PO
206 BROADWAY MEDICAL BLDG
4400 BROADWAY
KANSAS CITY 64111
WATHANA-CHAROEN,SUCHINT, TS
4320 WORNALL RD
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WAXMAN,HERBERT,JOS, IM
8300 TROOST AVE THE MED GROUP
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WAXMAN,JANE,ZABEL, PO
5600 MISSION DR
SHAWNEE MISSION KS 66208
WEBB,HARRY,EDWARD, PS
4400 BROADWAY
KANSAS CITY 64111
WEIFORO,EDWARO,CLINTON, NS
4320 WORNALL RD
KANSAS CITY 64111
WEINSTEIN,CHAS,L, N
4440 BROADWAY
KANSAS CITY 64111
WEIR,ROBT,KILEY, OPH
4240 BLUE RIDGE BLVD
KANSAS CITY 64133
WELLS,DONALD,EUGENE, IM
MEYER BLVD AT PROSPECT
KANSAS CITY 64132
WELLS,JAMES,ARTHUR, AN
1008 VALENTINE RD
KANSAS CITY 64111
WELLS,JOHN,H, IM
3325 PROSPECT AVE
KANSAS CITY 64128
WELLS,STANLEY,C,
216 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY 64132
WENNER,HERBERT,A, PO
CHILDRENS MERCY HOSP
24TH & GILLHAM RD
KANSAS CITY 64108
WEST,HAROLO,O, ORS
1515 W TRUMAN RD
INDEPENDENCE 64050
WHEELER,CHAS,B, PH
4320 WORNALL RD
KANSAS CITY 64111
WHITAKER,JAMES,HENRY, ORS
6400 PROSPECT
KANSAS CITY 64132
WHITE,CHAS,HERBERT, AN
6518 OVERHILL RD
SHAWNEE MISSION KS 66208
WHITE,JAMES,STARLING, U
751 E 63RD ST
KANSAS CITY 64110
WHITE,STOUGHTON,F, U
4320 WORNALL RD
KANSAS CITY 64111
WHITE,WM,EMERSON, NM
6400 PROSPECT
KANSAS CITY 64132
WHITEMAN,JOHN,R, IM
206 NORTH DAVIES
GALLATIN 64640
*WHITMAN,DANIEL,STEPHEN, IM
UNIV OF MO SCH MED
KANSAS CITY 64108
WHITMAN,DOYLE,COLLINS, OM
6836 CHEROKEE LANE
SHAWNEE MISSION KS 66208
WHITMORE,J,STEWART, R
2929 BALTIMORE
KANSAS CITY 64108
WHITTAKER,CHAS,KEITH, NS
4440 BROADWAY
KANSAS CITY 64111
WIEN,IRVING,A, GS
1103 GRAND
KANSAS CITY 64106
WILBER,ROBT,OAYTON, GE
4320 WORNALL RD STE 208
KANSAS CITY 64111
WILHELM,WARREN,FRED, IM
6400 PROSPECT ST SUITE 333
KANSAS CITY 64132
WILKINS,MICHAEL,STEWART, IM
825 EUCLID
KANSAS CITY 64124
WILKINSON,CHAS,B, P
2200 MC COY
KANSAS CITY 64108
WILKINSON,EVERETT,A, GS
228 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY 64132
WILLIAMS,FENTON,ALVIN, R
1734 E 63RD ST
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| WILLIAMS,JOS,C,<br>6400 PROSPECT AVE<br>KANSAS CITY 64132 | OBG |
| WILLIAMS,ROLAND,DEAN,<br>409 BROADWAY MEDICAL BLDG<br>4400 BROADWAY<br>KANSAS CITY 64111 | OTO |
| WILLIAMS,STARKS,J,<br>2701 E 31ST ST<br>KANSAS CITY 64128 | PD |
| WILLIAMS,THOS,ARTHUR,<br>6601 ROCKHILL RD<br>KANSAS CITY 64131 | P |
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| WILLOUGHBY,JEAN,BROWN,<br>6400 PROSPECT<br>KANSAS CITY 64132 | IM |
| WILSON,CLIFFORD,CHAS,<br>1129 LEISURE LANE #8<br>WALNUT CREEK CA 94595 | CRS |
| WINER,HERBERT,J,<br>6724 TROOST STE 210<br>KANSAS CITY 64131 | OBG |
| WINER,NATHANIEL,<br>2301 HOLMES<br>TRUMAN MEDICAL CENTER<br>KANSAS CITY 64108 | IM |
| WINKELMAN,ESTHER,B,<br>6400 PROSPECT SUITE 224<br>KANSAS CITY 64132 | GP |
| WINSTON,BERNARD,HARRY,<br>601 E 63RD ST<br>KANSAS CITY 64110 | O |
| WISE,GEO,W,<br>24TH & GILLHAM RD<br>KANSAS CITY 64108 | PD |
| WISE,MORRIS,FLARSHEIM,<br>6724 TROOST SUITE<br>KANSAS CITY 64131 | U |
| WITHERS,ORVAL,RAYMOND,<br>114 CYPRESS ST<br>LEE'S SUMMIT 64063 | A |
| WOEHL,JOS,JOHN,<br>4320 WORNALL RD NO 620<br>KANSAS CITY 64111 | N |
| WOLF,JACK,W,<br>6724 TROOST AVE STE 500<br>KANSAS CITY 64131 | IM |
| WOOD,DAVID,G,<br>340 PENN PARK<br>2929 BALTIMORE<br>KANSAS CITY 64108 | DR |
| WOODS,HAROLD,VERNON,<br>1405 W 40TH HIGHWAY<br>BLUE SPRINGS 64015 | GS |
| WOODS,SAML,DWIGHT,<br>4320 WORNALL RD RM 216<br>KANSAS CITY 64111 | GS |
| WOODS,WALTON,CLAY,<br>TWA OVERHAUL BASE<br>P O BOX 20126<br>KANSAS CITY 64195 | OM |
| WOODWARD,WM,WIRT,<br>4240 BLUE RIDGE BLVD<br>KANSAS CITY 64133 | IM |
| WORTMANN,ROBT,FRANCIS,<br>2819 W 66TH TERR<br>SHAWNEE MISSION KS 66208 | OBG |
| WRIGHT,R,PAUL,<br>6700 TROOST ST-STE 40<br>KANSAS CITY 64131 | IM |
| WU,SHUH-MIN,<br>6724 TROOST AVE STE 500<br>KANSAS CITY 64131 | IM |
| WU,WM,QUO,<br>6700 TROOST<br>KANSAS CITY 64131 | NS |
| WURSTER,JERRY,BURL,<br>4320 WORNALL RD<br>KANSAS CITY 64111 | OPH |
| WURSTER,W,JOEL,<br>409 BROADWAY MEDICAL BLDG<br>4400 BROADWAY<br>KANSAS CITY 64111 | OTO |
| YANKASAMMY,SAMUEL,D,<br>MEMORAH MEDICAL CENTER<br>4949 ROCKHILL RD<br>KANSAS CITY 64110 | GS |
| YOULL,DONALD,VERNON,<br>6700 TROOST<br>KANSAS CITY 64131 | A |
| YOUMANS,RONALD,ALAN,<br>415 E 63RD ST<br>KANSAS CITY 64110 | N |
| YOUNG,JAMES,E,<br>4320 WORNALL RD STE 716<br>KANSAS CITY 64111 | P |
| YOUNG,JESSE,W,<br>1401 SOUTHWEST BLVD<br>KANSAS CITY KS 66103 | GP |
| YOUNGBLOOD,JAMES,PETER,<br>1010 CARONDELET DR<br>KANSAS CITY 64114 | OBG |
| YU,MARIO,K,<br>SUITE 117<br>4706 BROADWAY<br>KANSAS CITY 64112 | N |
| ZAHONY,IVAN,<br>4404 W 111TH TERR<br>SHAWNEE MISSION KS 66211 | AN |
| ZAHORSKY,CARROLL,LE ROY,<br>SUITE 115<br>4706 BROADWAY<br>KANSAS CITY 64112 | PS |
| ZELLER,DARRELL,EUGENE,<br>328 ST JOSEPH MED BLDG<br>1010 CARONDELET DR<br>KANSAS CITY 64114 | OBG |
| ZERR,CHARLES,HARVEY,<br>4116 S SPRING<br>INDEPENDENCE 64055 | IM |
| ZIEMIANSKI,MATTHEW,C,<br>110 ROCKHILL MEDICAL BLDG<br>6700 TROOST<br>KANSAS CITY 64131 | OPH |
| ZOLLER,DAVID,DE BOIS,<br>101 MEMORIAL DR<br>KANSAS CITY 64108 | PTH |
| ZWERENZ,BRUNO,H,<br>1734 EAST 63RD STREET<br>KANSAS CITY 64110 | P |

## 102—JASPER

| | |
|---|---|
| ADAMS,ROBT,BELDING,<br>3103 MC CLELLAND<br>JOPLIN 64801 | IM |
| AL-SHATHIR,SAA,M,<br>BRADY BUILDING<br>ST JOHNS MED CEN<br>2727 MC CLELLAND<br>JOPLIN 64801 | PM |
| ALLEN,DAVID,D,<br>3105 MC CLELLAND BLVD<br>JOPLIN 64801 | U |
| ARNOLD,JAMES,T,<br>MEDICAL ARTS BLDG<br>JOPLIN 64801 | DR |
| BENTLAGE,CHAS,HENRY,<br>1513 W 32ND ST-HILLSIDE MED PL<br>JOPLIN 64801 | GS |
| BHEND,DAVID,PAUL,<br>3115 MC CLELLAND BLVD<br>JOPLIN 64801 | P |
| BIRO,WM,J F,<br>2727 MC CLELLAND BLVD<br>JOPLIN 64801 | U |
| BIRSNER,FRANK,H,<br>2401 JACKSON ST<br>JOPLIN 64801 | GP |
| BLADOW,TERRENCE,CRAIG,<br>3107 MC CLELLAND BLVD<br>JOPLIN 64801 | PD |
| BOPP,JON,RONALD,<br>3115 MC CLELLAND BLVD<br>JOPLIN 64801 | OBG |
| BRANDON,FREDERICK,M,<br>1102 W 32ND ST<br>JOPLIN 64801 | R |
| BROWNING,RONALD,A,<br>3103 MC CLELLAND BLVD<br>JOPLIN 64801 | IM |
| BURCH,JOHN,ELLIS,<br>200 MEDICAL ARTS BLDG<br>JOPLIN 64801 | OBG |
| BURLEIGH,BRUCE,WENTWORTH,<br>2700 MC CLELLAND BLVD<br>JOPLIN 64801 | ORS |
| BUTLER,PATRICK,LOUIS,<br>1330 CREST DR<br>JOPLIN 64801 | OPH |
| CARNES,VICTOR,METCALFE,<br>P O BOX 8 MAIN OFFICE<br>JOPLIN 64801 | PTH |
| CHASE,NED,B,<br>2700 MC CLELLAND BLVD<br>JOPLIN 64801 | ORS |
| CHELLAPPA,DANUKODI,<br>2727 MC CLELLAND BLVD<br>JOPLIN 64801 | IM |
| CHESNEY,GEO,W,<br>2604 PICHER ST<br>JOPLIN 64801 | AN |
| CLARK,FRANK,I,<br>3107 MC CLELLAND BLVD<br>JOPLIN 64801 | PD |
| COHLE,RICHARD,RAYMOND,<br>301 E CHESTNUT ST<br>CARTHAGE 64836 | IM |
| CONDE,GARY,A,<br>2509 JACKSON<br>JOPLIN 64801 | FP |
| CRAIG,IRWIN,T,<br>2039 GULF OF MEXICO DR<br>LONGBOAT KEY FL 33548 | GYN |
| CRAWFORD,ARCHIE,L,<br>607 MAIN ST<br>JOPLIN 64801 | GS |
| CRISPELL,LAWRENCE,S,<br>2000 CENTER BLDG-20TH CONN<br>JOPLIN 64801 | OTO |
| DANDRIDGE,WALTER,CURTISS,<br>SUITE 111<br>MEDICAL ARTS BLDG<br>JOPLIN 64801 | GS |
| DAVIS,CHAS,SAML,<br>301 MED ARTS BLDG<br>JOPLIN 64801 | CD |
| DE TAR,BURLEIGH,ELI,<br>410 JACKSON AVE<br>JOPLIN 64801 | GS |
| DIXON,HERBERT,K,<br>1416 JOPLIN ST<br>JOPLIN 64801 | OPH |
| ELISCU,JULIETTE,M,<br>3107 MC CLELLAND<br>JOPLIN 64801 | PD |
| ESTHER,JOHN,ROBT,<br>FERGUSONS LAB BOX 8<br>JOPLIN 64801 | PTH |
| FERGUSON,ROBT,M,<br>510 E 32ND<br>JOPLIN 64801 | GP |
| FRITSCH,ANDREW,JOHN,<br>2525 JACKSON ST<br>JOPLIN 64801 | IM |
| FROGGE,JIMMY,DON,<br>3105 MC CELLAND BLVD<br>JOPLIN 64801 | U |
| GARDNER,JOS,A,<br>3101 MC CLELLAND BLVD<br>JOPLIN 64801 | OBG |
| GASTON,SAML,LEE,<br>2720 OHIO<br>JOPLIN 64801 | R |
| GREBE,T,KEITH,<br>3209 MC CLELLAND<br>JOPLIN 64801 | OBG |
| GRIM,EDWARD,MICHAEL,<br>3105 MC CLELLAND BLVD<br>JOPLIN 64801 | U |
| GRUBB,PAUL,H,<br>2509 JACKSON<br>JOPLIN 64801 | GP |
| HABERMANN,JAMES,H,<br>1102 W 32ND<br>JOPLIN 64801 | PTH |
| HALL,MARVIN,FRANCIS,<br>3115 MC CLELLAND<br>JOPLIN 64801 | R |
| HALLABA,MOHEB,ABDEL S,<br>2601 CUNNINGHAM<br>JOPLIN 64801 | GS |
| HILTON,PAUL,EDGAR,<br>1612 MURPHY BLVD<br>JOPLIN 64801 | O |
| HOLTZMAN,SAML,<br>3001 MARTIN L KING DR APT 201<br>CHICAGO IL 60616 | O |
| HURST,WILFRED,WANDA,<br>3115 MC CLELLAND<br>JOPLIN 64801 | ORS |
| HWANG,YUNG,HWAN,<br>924 DAUGHERTY<br>WEBB CITY 64870 | GS |
| ISBELL,CHAS,HARLOW,<br>1515 HAZEL AVE<br>CARTHAGE 64836 | GP |
| JEANS,VIRGIL,EDWARD,<br>660 JACCARD PL<br>JOPLIN 64801 | GS |
| KIRKMAN,ROBERT,E,<br>2529 JACKSON ST<br>JOPLIN 64801 | PS |
| KOEHLER,JOHN,WM,<br>3103 MC CLELLAND BLVD<br>JOPLIN 64801 | IM |
| KUHN,JOHN,RAYMOND,<br>321 FRISCO BLDG<br>JOPLIN 64801 | GP |
| LONGENECKER,JOE,LESLIE,<br>2503 JACKSON AVE<br>JOPLIN 64801 | GP |
| MAC LAUGHLIN,JAMES,C,<br>3103 MC CLELLAND BLVD<br>JOPLIN 64801 | IM |
| MAJZOUB,HISHAM,SALIM,<br>2902 MC CLELLAND<br>JOPLIN 64801 | NS |
| MANALO,GIL,BALEVA,<br>510 S GARRISON<br>CARTHAGE 64836 | GS |
| MANGALAT,NARAYANAN,K,<br>25 JACKSON AVE<br>MEDICAL ARTS BLDG<br>JOPLIN 64801 | NEP |
| MARTIN,CLARENCE,A,<br>1513 W 32ND<br>JOPLIN 64801 | GS |
| MC GONIGLE,JAMES,PATRICK,<br>2730 CUNNINGHAM<br>JOPLIN 64801 | OPH |
| MC GONIGLE,MICHAEL,M,<br>2620 CUNNINGHAM<br>JOPLIN 64801 | GP |

MC PIKE,LLOYD,H, GS
2217 BROWNELL ST
JOPLIN 64801
MUELLER,ADOLPH,R, ORS
2700 MC CLELLAND BLVD
JOPLIN 64801
PADDOCK,CHAS,SAML, U
3905 RANGE LINE RD
JOPLIN 64801
PATTERSON,DONALD,R, GP
2509 JACKSON ST
JOPLIN 64801
PATTERSON,GROVER,S, FP
510 S MAIN ST
CARTHAGE 64836
PENCE,FRANCIS,WENDELL, FP
2727 MC CLELLAND BLVD
JOPLIN 64801
POOR,CARL,WM, OS
411 JOY ST
NEOSHO 64850
POTTENGER,LOWELL,KENNETH, DR
107 MEDICAL ARTS BLDG
JOPLIN 64801
POWELL,ROBT,G, IM
2329 JACKSON
JOPLIN 64801
PRYOR,IRA,JOE, AN
2700 MC CLELLAND BLVD
JOPLIN 64801
RAY,DAVID,JOSEPH, U
1031 MC INTOSH CIRCLE DR
JOPLIN 64801
ROBERTS,HOWARD,HEAROLD, OBG
3101 MC CLELLAND
JOPLIN 64801
ROYCE,JAMES,J, GP
16TH MINER STS
SARCOXIE 64862
SABAPATHY,SHANMUGASUNDARAM, IM
MEDICAL ARTS BLDG ROOM 205
JOPLIN 64801
SANEMAN,PAUL,PHILIP, OBG
2700 MC CLELLAND BLVD
JOPLIN 64801
SCHMIDT,HERBERT,JACKSON, OBG
2700 MC CLELLAND BLVD STE 109
JOPLIN 64801
SCHOEBERL,CLETUS,BERNARD, IM
305 MED ARTS BLDG
JOPLIN 64801
SCHULTE,GREGORY,A, GP
2125 JACKSON AVE
JOPLIN 64801
SCORSE,SIDNEY,WM, EM
R R 1-BOX 236
NEOSHO 64850
SHANAHAN,MARY,PATRICIA, OBG
P O BOX 212K
JOPLIN 64801
SINGLETON,MARVIN,AYERS, OTO
114 W 32ND ST
JOPLIN 64801
SMITH,ROLAND,T, GS
207 MEDICAL ARTS BLDG
JOPLIN 64801
SMITH,W,RUSSELL, GS
211 E CHESTNUT ST
CARTHAGE 64836
STIDMAN,FREDERICK,C, PD
3107 MC CLELLAND BLVD
JOPLIN 64801
STRAUB,DAVID,LEE, AI
3107 MC CLELLAND
JOPLIN 64801
TURFBOER,ROBERT, OM
2808 PICHER AVE
JOPLIN 64801
VINYARD,JACK,LEROY, GP
2727 MC CALLAND BLVD
JOPLIN 64801
WALKER,PAUL,WM, U
1022 N SERGEANT
JOPLIN 64801
WHITTEN,M,FOSTER, GP
616 W CENTENNIAL ST
CARTHAGE 64836
WIEMAN,HARRY,K, IM
206 MED ARTS BLDG
JOPLIN 64801
WILCOX,RUTH,E WRIGHT, PD
614 JOPLIN ST
JOPLIN 64801
WILLCOXON,ROBT,LEONARD, GS
2601 CUNNINGHAM
JOPLIN 64801
WILSON,ALICE,HORNBUCKLE, OS
RTE 1 BOX 163
NEOSHO 64850
WOOD,GEO,HARMON, GP
1515 HAZEL AVE
CARTHAGE 64836
YOUNG,CALVIN,CLYDE, R
3115 MC CLELLAND
JOPLIN 64801

## 106—JEFFERSON

ALBANO,BENJ,I, GS
P O BOX 380
CRYSTAL CITY 63019
ALLBEE,ROGER,HUBBARD, GS
121 B MISSIPPI
CRYSTAL CITY 63019
BAI,SANG,ZIN, CD
107 WALNUT ST
FESTUS 63028
BELEN,MARIETTA, PD
103 N MILL ST
FESTUS 63028
BLANK,MICHAEL,KENNETH, GS
111 EASTON ST
DE SOTO 63020
BONIFACIO,ANDRES,S, OBG
121 MISSISSIPPI
CRYSTAL CITY 63019
CARRON,JOSEPH, IM
1606 HOBELMANN
ARNOLD 63010
CARSON,RICKEY,REYNOLDS, FP
1201 N 6TH ST
BLYTHEVILLE AR 72315
CHARLES,NALLATHAMBI, PTH
MEDICAL VILLAGE
FESTUS 63028
CHARLES,PADMINI, GP
MEDICAL VILLAGE
RT #4
FESTUS 63028
CONANT,JAMES,FREDERICK,
111 EASTON ST
DE SOTO 63020
DELES,VICENTE,DOROMAL, GS
121 MISSISSIPPI AVE
CRYSTAL CITY 63019
DONNELL,HAROLD,E, GP
700 N MAIN
DE SOTO 63020
DONNELL,ROBT,HART, DR
112 MISSISSIPPI
CRYSTAL CITY 63019
DONNELL,THOS,ALISON, GP
P O BOX 592
HILLSBORO 63050
EDWARDS,WALDO,BERRY, OBG
135 W ADAMS
KIRKWOOD 63122
JUDGE,WALTER,THOS, GS
1004 TAYLOR AVE
CRYSTAL CITY 63019
PARK,DUK,JAE, IM
105 WALNUT ST
FESTUS 63028
RUTLEDGE,JOHN,FREDERICK, GP
MANNS BLDG
FESTUS 63028
*SCHWENT,JOHN,T,
125 MISSISSIPPI AVE
CRYSTAL CITY 63019
SIRINTRAPUN,SEYVEE, OBG
1515 SWEENEY DR
FESTUS 63028
VERZOLA,EUFEMIO,G, GS
11 MAIN ST
HERCULANEUM 63048
YOSKIT,HARRY, D
1028 W MAIN ST
FESTUS 63028

## 110—JOHNSON

COOPER,ROBT,L, GP
602 N MC GUIRE
WARRENSBURG 64093
COOPER,ROBT,L, OBG
P O BOX 458
WARRENSBURG 64093
DAMRON,OSCAR,HOMER, GP
308 JONES ST
WARRENSBURG 64093
FOLKNER,ALBERT,LE ROY, GP
222 E CULTON ST
WARRENSBURG 64093
GONZALEZ,MARIO,GARZA, R
JOHNSON CO MEM HOSP
WARRENSBURG 64093
GROVE,GULPH,WM, GP
210 E MC PHERSON
KNOB NOSTER 65336
HANNA,HUGH,A, GS
ROUTE 5
SOUTH MITCHELL STREET
WARRENSBURG 64093
HOBBS,GEO,HALL, PUD
P O BOX 2666
HARLINGEN TX 78550
JOHNSON,CHAS,STILLWELL, IM
114 E MARKET ST
WARRENSBURG 64093
JONES,KEITH,D, GP
122 E MARKET ST
WARRENSBURG 64093
LEDERER,CHAS,M, GP
122 E MARKET ST
WARRENSBURG 64093
MAXSON,THEODORE,REED, A
220 E CULTON
WARRENSBURG 64093
RAGLAND,JERRY,JOHN, GS
BOX 516
WARRENSBURG 64093
REYNOLDS,M,WAYNE, OPH
P O BOX 86
WARRENSBURG 64093
SICAT,ALFONSO,VITANGCOL, ORS
510 E GAY
WARRENSBURG 64093

## 118—LAFAYETTE-RAY

BALDWIN,THEODORE,RICHARD, GP
1236 JESSE JAMES RD
EXCELSIOR SPRINGS 64024
BEST,ROBT,BRUCE, EM
4300 W 111TH TER
SHAWNEE MISSION KS 66221
BOYDSTON,CATHERINE,O D, GP
107 S 2ND ST
ODESSA 64076
BOYDSTON,WYATT,WAYNE, GP
107 E 2ND ST
ODESSA 64076
BRADY,HUGH,S, GP
RR 1
CONCORDIA 64020
COOK,THOS,BENTON, GP
802 E MAIN ST
RICHMOND 64085
COPE,JOS,S, GS
1110 1/2 MAIN STREET
LEXINGTON 64067
CRAYTON,BILLY,G, FP
BOX 41
WAVERLY 64096
CROZIER,FRANKLIN,ALFRED, FP
201 S COLLEGE AVE
RICHMOND CLINIC
RICHMOND 64085
DAVAULT,GEO,K, GP
MEDICAL CENTER
RICHMOND 64085
DE MOTTE,JEANNE,MARIE, FP
HWY 13 SOUTH
P O BOX 68
RICHMOND 64085
GEORGE,THEODORE, GS
P O BOX 512
RICHMOND 64085
GOLDBERG,ISADORE,EDWARD, GP
BRAYMER CLINIC
BRAYMER 64624
KELLING,JORDAN,A, GP
KELLING CLINIC-HOSP
WAVERLY 64096
KUANGPARICHAT,MANOCH, IM
RT 1 BOX 165B
LEXINGTON 64067
LA HUE,WILLIAM,CARROLL, GS
1901 SLEEPY HOLLOW DR
LEXINGTON 64067
LAI,HSIEN-ELL, GP
15TH AND STATE STS
LEXINGTON 64067
MC FADDEN,GENE,ALAN, GP
KELLING CLINIC
WAVERLY 64096
MEYER,JERRY,LEE, FP
834 MAIN ST
CONCORDIA 64020
PAVLU,ROBT,RICHARD, GP
KELLING CLINIC HOSP
WAVERLY 64096
RILEY,CHAS,THOS, GP
BOX 68
RICHMOND 64085
VAJARANANT,MANIT, OBG
R 1 BOX 164
MEDICAL CLINIC
LEXINGTON 64067
WARD,JOE,WOODWARD, GP
1028 1/2 MAIN ST
LEXINGTON 64067
WILLIAMS,JOHN,WYLEY, OM
801 W 15TH
OAK GROVE 64075

## 122—LEWIS-CLARK-SCOTLAND

DAVIS,LANDIS,YOUNG, GP
5TH & CLARK STS
CANTON 63435

## 130—MARION-RALLS-SHELBY

AVILA,ESTRELLA,ZURBANO, IM
110 MAGNOLIA AVE
HANNIBAL 63401
AVILA,PATRICIO,C, GS
110 MAGNOLIA AVE
HANNIBAL 63401
BACH,LYSLE,M, R
4209 W ELY RD
HANNIBAL 63401

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* Doctor of Osteopathy.

BELL,ROBT,MALSEED, P
109 VIRGINIA
HANNIBAL 6340I
BORROMED,CARLDS,JASDN, PO
603 CDUNTRY CLUB DR
HANNIBAL 63401
BUBEN,ROBT,WM, GS
2910 ST MARYS AVE
HANNIBAL 63401
BUKSTEIN,MICHAEL,JERDME, GS
7II GRAND AVE
HANNIBAL 63401
BURNS,FRANCIS,R, DBG
TOWER PLAZA
CLINIC RD
HANNIBAL 6340I
BURTON,OALE,FDRREST, GS
P D BDX 311
HANNIBAL 63401
CLISHAM,JDHN,FRANCIS, U
B ANO L BLOG
HANNIBAL 63401
CDMER,JULIAN,RUSSELL, DR
RFD 2
NEW LONOON 63459
FLORENDO,FEOERICD,N, PTH
LEVERING HDSP
HANNIBAL 63401
FLDRENOO,PURIFICACION,T, OBG
TDWER PLAZA-CLINIC RD
HANNIBAL 63401
FOREMAN,PHILLIP,BEVERLY, GS
P O BOX 311
HANNIBAL 6340I
GOTTIPATTI,BHARATHI,B, OBG
711 GRAND
HANNIBAL 63401
GREENE,HARRY,LEMOINE, CO
109 B VIRGINIA
HANNIBAL 6340I
HALL,STANLEY,GENE, CLP
SYCAMDRE SPRING
RFD #2
HANNIBAL 6340I
HAMLIN,WYETH, IM
7II GRANO AVE
HANNIBAL 6340I
HINDS,ROY,DAVID, AN
RT #3
HANNIBAL 6340I
JAYANANDAIAH,HIREMATHAOA, P
4 BRIARWOOD
HANNIBAL 6340I
KRUSE,CARL,RAYMOND, GP
706 S DICKERSDN ST
PALMYRA 63461
KWON,YDNGSOD, GS
2910 ST MARYS
HANNIBAL 63401
LICHTY,CHAS,ALLEN, GP
SHELBINA 63468
MANN,JAMES,KEITH, PO
4074 HILLSIDE DRIVE
HANNIBAL 6340I
MURPHY,BERNARD,LEANDER, ORS
2000 CRESCENT OR
HANNIBAL 6340I
PALMER,RUSSELL,H, GP
706 S OICKERSDN ST
PALMYRA 6346I
PLOWMAN,EOWARD,MDRRIS, OPH
B ANO L BLDG
HANNIBAL 6340I
RAPP,EARL,LA MDINE, GP
BDX 3II
HANNIBAL 63401
RDLLER,MERRILL,JDS, GP
29IO ST MARY'S AVE
HANNIBAL 63401
STEELE,JAMES,C, OBG
2802 MARSH AVE
HANNIBAL 63401
STRANGE,LESLIE,C, OTD
7II GRAND
HANNIBAL 6340I
WALTERSCHEID,JDHN,H, GP
I209 BROADWAY
HANNIBAL 63401
WELL,JULIUS,WM, GP
III E OLIVE ST
PALMYRA 63461

## 182—MID-MISSOURI (Phelps-Crawford-Dent-Pulaski-Maries-Laclede Counties)

ANDREASSEN,DIMIL,F, EM
I8 DORIE
D'FALLON 63366
BARTLETT,HUGH,C, GP
1I00 W IGTH ST
ROLLA 65401
BAUMANN,ALBERT,R, GP
STEELVILLE 65565
BEALER,LDUIS,ALAN, GS
HARWDOO ANO CHESTNUT
LEBANON 65536
BHAT1,DEO,KALYAN, GS
5TH ANO N HENDERSON
SALEM 65560
BUTTS,JAMES,DDN, GP
100 ADRIAN
RDLLA 65401
CARRINGTON,HOWARO,W, GP
288 HARWODO ST
LEBANDN 65536
CASTER,PHILIP,W, GP
HARWDOO CL1NIC
HARWDDD AVE
LEBANDN 65536
CONE,WM,DRURY, P
1I00 W 10TH ST
RDLLA 65401
*COURTER,GARY,M, GP
HARWDDO AT CHESTNUT
LEBANDN 65536
DRAKE,AVERY,ALA, DPH
4357 N 106TH AVE
PHOENIX AZ 85039
DRAPER,BERNARD,LEE, GBG
I100 W IOTH ST
RDLLA 65401
ELOERS,FRANK,ALVIN, GP
RT 1 BOX 69A
CUBA 65453
FEIND,EARL,EVERETT, GP
BDX I3
ROLLA 6540I
FORTIN,JORGE,A, OBG
700 W 1ITH STREET
RDLLA 65401
FROELICH,RAE,WARREN, FP
I345 W MADISON
LEBANDN 65536
GAPASIN,ERNESTO,MAOAYAG, GS
2OI W CDMMERCIAL
LEBANON 65536
GARRISDN,THEODORE,WAYNE, GP
P O BOX 356
CAMDENTDN 65020
GRANNEMANN,H,NEAL, PTH
IDOO W IOTH ST
ROLLA 6540I
HAMMLER,CHRISTIANA,V, GP
PHELPS COUNTY HOSP
EXTENDEO CARE UNIT
RDLLA 654DI
HAYDEN,MELVIN,RAY, FP
CAMDENTON MED CNTR
CAMDENTDN 65020
HEILBRUNN,ILSE, OS
12038 FDRUM
ROLLA 65401
HITE,DENNIS,E, GP
HARWDOD CLINIC
LEBANDN 65536
HOLLEY,DONALO,BURTDN, GP
CAMDENTON MED CTR FAM PRAC
CAMOENTON 65020
MARTI,LARRY,BENZ, ORS
1I00 W IOTH ST
RDLLA 6540I
MITCHELL,RDY,E, GP
I04 N MAIN
SALEM 65560
MYERS,JAMES,MARTIN, GP
1016 W I2TH ST
ROLLA 65401
PENDELL,PAUL,WINTON, GS
I662 PDINT BLANK LOOP
CANNDN AIR FDRCE BASE
CLDVIS NM 88101
PDJANASDMBDON,PICHAT, DPH
1I00 W IOTH ST
ROLLA 65401
RUSSELL,BARBARA,EOMONDS, PD
IITH AND BISHDP
RDLLA 6540I
SAUNDERS,CARDL,SPELLMAN, PD
C/D RUSSELL YDUNG CLINIC
1ITH AND BISHOP ST
POLLA 6540I
SAUNDERS,JOHN,A, PD
RT 4 BOX I97
ROLLA 654DI
SHERMAN,PHILIP,ARNDLO, GP
HARWDDD AT CHESTNUT
HARWCDD CLINIC
LEBANDN 65536
SHUKLA,JYDTINDRA,O, IM
W 3RD STREET
SALEM 65560
SLAHDREK,GEORGE,J, PTH
GEN LEDNARO WOOD ARMY HOSP
PATHOLOGY DEPT
FORT LEDNARO WDDD 65473
SMITH,TED,PAULSELL, GP
S&S ACRES ROUTE 2
ROLLA 65401
STRICKER,EAMIL,ADDLPH, ABS
IOTH & BISHOP
ROLLA 6540I
TANG,TEODORO, GS
BOX 437
SALEM 65560
THEOBALD,STERLING, GP
MISSIDNARY MEO CTR-BDX 368
CAMDENTON 65020
WHITE,EUGENE,FLOYO, OBG
700 W 11TH ST
RDLLA 65401
WIENCH,DELANE,FRANC1S, PTH
1000 WEST 10TH ST
ROLLA 65401
YOUNG,RDBT,B, FP
700 W 11TH ST
ROLLA 65401

## 134—MILLER

BUEHLER,CARL,T, GP
6 S MAPLE ST
ELODN 65026
MASDN,LAWRENCE,H, GP
I600 E NDRTH ST
RT I BDX 495
ELDON 65026
SHELTON,EOWARD,OLNEY, GP
104 W NEWTDN
ELDDN 65026

## 138—MINERAL AREA (St. Francois-Iron-Madison-Washington-Reynolds-Bollinger Counties)

APPLEBERRY,CHAS,H, P
43 ST JOE ST
FLAT RIVER 6360I
BENTINGANAN,VICTDR,D, GS
703 W MAIN STREET
FREDERICKTDWN 63645
BOONYASAI,BOONFU, GP
W MAPLE ST AT HIGHWAY 2I
PILDT KNDB 63663
BURCHAM,TDM,RICHARDSON, GP
RT I BDX I6B
FARMINGTDN 63640
CANCELADA,JUAN,V, DBG
NDRTH STREET
FARMINGTDN 63640
CARLETON,CHAS,E, GP
MED ARTS CLINIC
FARMINGTDN 63640
DATTA,NARENDAR,KUMAR, DBG
30 N ALLEN
BONNE TERRE 6362B
DAVIS,THOMAS,NEWMAN, P
STATE HOSPITAL
FARMINGTGN 63640
OENNIS,WM,PAUL, GP
I000 N MAIN ST
DESLOGE 63601
DENT,GEDRGE,WINNETT, OBG
30I W LIBERTY ST
FARMINGTDN 63640
OETTMER,ROBT,FRANKLIN, GP
I2B W RUSSELL
IRONTDN 63650
DIERKER,HARRY,DENNIS, GP
30I W LIBERTY ST
FARMINGTDN 63640
FARMER,NDRMA,P OUNNING, P
709 WARREN ST
FARMINGTON 63640
GRAY,WALTER,CDRWIN, FP
301 W LIBERTY
FARMINGTDN 63640
HARDY,STANTDN,LEE, GP
I000 N MAIN ST
DESLDGE 6360I
HOCTOR,EMMETT,F, P
STATE HDSP ND 4
FARMINGTDN 63640
HUCKSTEP,ROBT,ARNOLD, IM
30I W LIBERTY ST
FARMINGTDN 63640
HUNT,JOHN,W, GP
RT BDX 10I
FARMINGTDN 63640
KARRAKER,ALVAN,G, GP
30I W LIBERTY ST
MEDICAL ARTS CLINIC
FARMINGTON 63640
KIM,LONGIUS,HEAILL, GS
AUSTIN PLAZA
POTDSI 63664
KIYANCLAR,MDHAMED,AMIN, AN
DEPT OF ANES
BARNES HDSP
ST LOUIS 63110
MAROINI,EDWARD,ELIAS, GS
30 NDRTH ALLEN
BDNNE TERRE 6362B
MENNE,MARVIN,C, GP
109 N MAIN ST
IRDNTON 63650
MULLEN,JACK, IM
30 N ALLEN ST
BONNE TERRE 6362B

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* Doctor of Osteopathy

NEUKOM,GEO,B, P
324 E LOCKWOOD
ST LOUIS 63119
NEWCOMB,ARTHUR,DEE, DS
1008 W 10TH ST
LAMAR 64759
NICOLAY,WM,ROBT, R
599 0 WINDING CREEK RD
FAYETTEVILLE NC 28305
OLIVER,GEO,A, GS
MEDICAL ARTS CLINIC
FARMINGTON 63640
PICHARDO,JAVIER,A, P
FARMINGTON STATE HOSP-RM 4
FARMINGTON 63640
RAKSAKULTHAI,VINAI, OBG
703 W MAIN ST
FREDERICKTOWN 63645
RAMAMOHANARAO,A, IM
703 W MAIN ST
FREDERICKTOWN 63645
SERMCHIEF,CHAIYARAT, OBG
703 W MAIN
FREDERICKTOWN 63645
SIMPELO,RUSTICO,V, GS
AUSTIN PLAZA
POTOSI 63664
TAYLOR,VAN,WM, GS
54 CHURCH ST
BONNE TERRE 63628
TUTTLE,JAY,FORRESTER, P
421 HICKORY GLEN LANE
ST LOUIS 63141
VIBULAKADPUN,PAIRAT, IM
30 N ALLEN ST
BONNE TERRE 63628
WATKINS,GEO,LINN, GS
1105 LA JOLLA RANCHO RD
LA JOLLA CA 92037

## 142—MONITEAU

FULKS,RICHARD,B, GP
BOX 410
CALIFORNIA 65018
GALLAGHER,LIONEL,M, GP
102-A OAHLER ST
CALIFORNIA 65018
LATHAM,KENYON,STUART, GP
109 N HIGH
CALIFORNIA 65018

## 146—MONTGOMERY

BYLAND,SAML,J, GP
120 HUDSON ST
WELLSVILLE 63384

## 150—MORGAN

GUNN,JACK, GP
VERSAILLES 65084
HALL,CHAS,ROBT, FP
GUNN CLINIC
VERSAILLES 65084
KAUFFMAN,RUTH, GP
S MONROE ST
VERSAILLES 65084
LYLE,ROBT,R, GP
GUNN CLINIC
VERSAILLES 65084
WASHBURN,JOHN,LOREN, GP
BOX 109 BANK BLDG
VERSAILLES 65084

## 162—NORTH CENTRAL (Adair-Schuyler-Knox-Sullivan-Putnam Counties)

ENGLISH,MILTON,TATE, ORS
2902 N BALTIMORE
KIRKSVILLE 63501
TARVYDAS,FRANCIS, GP
EDINA 63537

## 158—NORTHWEST (Nodaway-Holt-Atchison-Gentry-Worth Counties)

BARE,EDWARD,F, GP
102 S 6TH
TARKIO 64491
BAUMAN,HENRY,C, FP
929 WEST 3RD
MARYVILLE 64468
BYLAND,BENJ,FRANK, GS
P O BOX C
MARYVILLE 64468
CARLIN,ALBERT,LEONARD, GP
PARK AVE
STANBERRY 64489
CARPENTER,WALLACE, GP
100 CASS ST
ROCK PORT 64482
CASTILLO,ISABELO, GS
SOUTH MAIN ST
MARYVILLE 64468
DEAN,WALTER,E, FP
HIGHWAY 71 SOUTH
MARYVILLE 64468
DIZNEY,DESMION,MAGDALENA, GP
NW MO ST UNIV-COLBERT HALL
MARYVILLE 64468
DUNDEE,JOHN,THOBURN, R
ST FRANCIS HOSPITAL
MARYVILLE 64468
DUNSHEE,ROBT,E, GP
406 1/2 NORTH MAIN STREET
MARYVILLE 64468
HARR,PATRICK,BRIAN, FP
HIGHWAY 71 S
MARYVILLE 64468
HAVALDAR,KANTI,LAL, IM
HWY 71 SPD BOX C
MARYVILLE 64468
HUMPHREY,JAMES,DAVIS, GP
MOUND CITY 64470
IMES,ELVIN,D, FP
119 N MAIN ST
MARYVILLE 64468
KHAN,M,OSMAN, OR
RFD 4
MARYVILLE 64468
KURUVILLA,GEORGE, GS
PHYSICIANS BLDG
MARYVILLE 64468
MATTESON,FRANK,BIROSEY, GP
21 W 3RD ST
GRANT CITY 64456
NIEDERMEYER,EDWARD,L, GP
305 BROAD ST
TARKIO 64491
WANAMAKER,JOHN,MORGAN, GP
110 MILL ST W
ROCK PORT 64482
WEMPE,GEO,RAYMOND, GP
P O BOX C
MARYVILLE 64468

## 166—OZARKS (Barry-Lawrence-Stone-Christian-Taney-Newton-McDonald Counties)

ANDERSON,PAUL,BERTRAM, GP
113 W HICKORY
NEOSHO 64850
APOSTOL,ANDRES,GALAM, GS
801 LINCOLN ST
MONETT 65708
BARNES,LARRY,GENE, IM
113 W HICKORY
NEOSHO 64850
BETZ,RICHARD,JOSEPH, IM
SALE MEM HOSP
NEOSHO 64850
BETZ,ROBERT,FRANCIS, GS
113 WEST HICKORY
NEOSHO 64850
BIZEK,JOS,LOUIS, GS
500 A PORTER
AURORA 65605
BLANKENSHIP,GEO,WM, GP
ROUTE #6 BOX 385
NEOSHO 64850
BOWMAN,MELVIN,C, GP
DRAWER 10
NEOSHO 64850
BROWN,FREDERICK,BEDFORD, GP
AURORA HOSP
AURORA 65605
CAMPBELL,DANIEL,C, TS
STATE CHEST HOSPITAL
MOUNT VERNON 65712
CARTER,JAMES,ROBT, GS
113 W HICKORY ST
NEOSHO 64850
CHRISTIANSON,CHAS,S, PUD
ROUTE 1
BOX 85
MOUNT VERNON 65712
COWLEY,RAY,GARN, PH
MISSOURI STATE CHEST HOSP
MOUNT VERNON 65712
CRAIN,JAMES,W, ABS
HAMMERS BLDG
BRANSON 65616
CRUZ,SERGIO,GOMEZ, IM
ST VINCENT HOSP
801 LINCOLN
MONETT 65708
DABBS,WILBUR,DUANE, GP
SALE MEM HOSP
NEOSHO 64850
DATTA,JYOTI,SARUP, IM
MISSOURI STATE CHEST HOSP
COTTAGE #5
MOUNT VERNON 65712

DONLEY,ROBT,RAYMOND, GP
617 W CLEVE
MONETT 65708
ESPARRAGO,F,R, GS
801 LINCOLN
MONETT 65708
GALINSKY,LEON,JACOB, PUD
164 PASEO CHUPAROSAS
GREEN VALLEY AZ-65614
GARDNER,JOS,WOODS, GP
8 WALNUT LANE
KIMBERLING CITY 65686
GILLISPIE,ROY, GP
BRANSON HGTS
BRANSON 65616
GLASS,WM,JAMES, GP
315 A BROADWAY
MONETT 65708
GLOVER,WM,ALBERT KENNETH, GP
207 S MARKET ST
MOUNT VERNON 65712
GRAVES,ARTHUR,J, GP
BOX 190
MOUNT VERNON 65712
HAMILTON,WM,PETE, GP
BOX 469
AURORA 65605
HELLWEG,CHAS,EDWARD, PUD
MOUNT VERNON 65712
HUNTINGTON,IONE, PUD
MO STATE CHEST HOSP
MOUNT VERNON 65712
KENNEY,ROY,EVANS, GP
113 W HICKORY
NEOSHO 64850
KERR,FRANK,TAYLOR, GP
511 W CLEVELAND
MONETT 65708
LENTZ,HAROLD,CALVIN, GP
603 HIGHLAND P
NEOSHO 64850
MARS,HARTLEY,FARNHAM, CRS
FORSYTH 65653
MC MILLAN,DAVID,L, IM
113 WEST HICKORY
NEOSHO 64850
MERIDETH,MARY,JANE, GP
P O DRAWER H
CASSVILLE 65625
MONTELLANO,ARTURO,H, OBG
808 EUCLID
MONETT 65708
MORRISON,THOS,ARTHUR, GP
203 WASHINGTON
AURORA 65605
OCCENO,VICTOR,G, GS
808 EUCLID
MONETT 65708
OLIVE,GEO,C, A
113 W HICKORY ST
NEOSHO 64850
PARKISON,DONALD,EUGENE, GP
SHELL KNOB MED CLI
SHELL KNOB 65747
REGIER,CARL,MELVIN, R
SKAGGS COMMUNITY HOSP
CAHILL RD
BRANSON 65616
ROPER,STANLEY,DAYTON, GP
BOX 160
OZARK 65721
SPEARS,CHAS,ARVARD, GP
1153 W HWY 76
BRANSON 65616
TAYLOR,LEO,THORESTEIN, AM
P O BOX 249
NEOSHO 64850
WHITE,RUSSELL,O, FP
DOCTORS BLDG
500-A PORTER AVE
AURORA 65605
WOMMACK,FRED,LOREN, GP
CRANE 65633

## 170—PEMISCOT

BENITONE,JERRY,D, GS
BOX 201
CARUTHERSVILLE 63830
BERNARD,JAMES,WALTER, GP
DOCTORS CLINIC BOX 201
CARUTHERSVILLE 63830
BRYANT,W,D, GP
701 E LINCOLN
HAYTI 63851
CAIN,CHAS,F, GP
400 CARLETON AVE
CARUTHERSVILLE 63830
GRABLE,JAMES,O, GP
203 E 3RD ST
PORTAGEVILLE 63873
GUBIN,ALAN,S, PD
106 W 12TH ST
CARUTHERSVILLE 63830
MC COY,WARREN,R, GS
1117 WARD AVE
CARUTHERSVILLE 63830
MC KASKLE,CLARENCE,W, GS
400 CARLETON AVE
CARUTHERSVILLE 63830
PAINTER,ANDREW,ERNEST, GP
223 KING STREET
PORTAGEVILLE 63873

PAINTER,LATTIE,B, GP
204 E 3RD ST
PORTAGEVILLE 63873
PATTARDPONG,THEERAWAT, IM
747 MAIN ST
NEW MADRID 63669
SAENGSAMRAN,SANAN, IM
223 S THIRD STREET
HAYTI 63651
SHIREY,ARNOLD,GRADY, GP
200 S 4TH ST
HAYTI 63651
SUPATTANASIRI,GRITTE, GS
1115 WARD
CARUTHERSVILLE 63830

## 174—PERRY-STE. GENEVIEVE

CARRON,OSCAR,A, OS
P O BOX 266
MEDICAL ARTS BLDG
PERRYVILLE 63775
CHEN,I-HSIUNG, GP
POINTE BASSE PLAZA MALL
STE GENEVIEVE 63670
DE GENOVA,GERARD,H, GP
HOSPITAL LANE
CENTER DRIVE
STE GENEVIEVE 63670
EUGENIO,ROMEO,REYES, PO
PERRY PLAZA
PERRYVILLE 63775
FAIRCHILD,JAMES,FRED, FP
12 S JACKSON
PERRYVILLE 63775
FELTZ,LAWRENCE,WM, GP
PERRY PLAZA MED CENTER
PERRYVILLE 63775
FISCHER,THEODORE, IM
P O BOX 146
ALTENBURG 63732
GONZALES,JOSE,H, U
PERRY PLAZA MEDICAL CENTER
PERRYVILLE 63775
HOYE,ROBERT,C, GS
149 M POINTE BASSE PLAZA
STE GENEVIEVE 63670
EY,MARTIN,LEWIS, GS
840 HAYZELWOOD DR
LINCOLN NE 68510
AI,GUANG-JENG, GP
51653 PHEASANT RUN
SAGINAW MI 48603
IMPIPHIPHATN,DHAJPHONG, GS
PERRY PLAZA MED CTR
PERRYVILLE 63775
IMPIPHIPHATN,ESTER,P, GP
PERRY PLAZA MED CTR
PERRYVILLE 63775
UTKEWITTE,JOS,FRANCIS, GP
610 ROZIER STREET
STE GENEVIEVE 63670
C DERMOTT,ALFRED,E, FP
12 S JACKSON ST
PERRYVILLE 63775
ONTILLAS,JOB,BADIOLA, GS
NORTHWEST STREETS
PERRYVILLE 63775
TTERMAN,WM,FREDERICK, GS
LAKE FOREST ESTATES
STE GENEVIEVE 63670

## 78—PETTIS

LLCORN,DONALD,JEAN, GP
1718 SOUTH INGRAM
SEDALIA 65301
ZAN,KENNETH,NAJEEB,
1718 SOUTH INGRAM
SEDALIA 65301
LOCK,JEROME,EDWARD, IM
ROUTE 2 BOX 538
SEDALIA 65301
GER,JAMES,W, GP
500 W 16TH ST
SEDALIA 65301
AZOS,JOHN,C, U
RR #6
SEDALIA 65301
AMPBELL,ALBERT,J, GP
625 E 13TH ST
SEDALIA 65301
LE,WM,R, GS
RT 1
SMITHTON 65350
UM,HAROLD,F, R
RTE 1
SEDALIA 65301
MONDS,ROBT,WALLACE, PO
1718 S INGRAM
SEDALIA 65301
WARDS,DAVID,RUSSELL, FP
700 S LIMIT AVE
SEDALIA 65301
DENBURG,DONALD,OTTO, GP
700 S LIMIT
SEDALIA 65301
ERICKSON,HARTLEY,JOHN, ORS
1718 S INGRAM
SEDALIA 65301
FARKAS,JAMES,ROBT, NM
BOTHWELL MEMORIAL HOSPITAL
RADIOLOGY DEPT
SEDALIA 65301
FISHER,STANLEY,D, GP
500 W 16TH ST
SEDALIA 65301
GLASS,ROBT,LESLIE, GS
1501 SOUTH GRAND
SEDALIA 65301
HOPKINS,T,SPENCER, IM
1718 S INGRAM
SEDALIA 65301
HOPKINS,THOS,J, GP
700 S LIMIT ST
SEDALIA 65301
HOROCHOWSKY,ALEJANDRO, GS
1718 SOUTH INGRAM
SEDALIA 65301
LACKEY,JOHN,M, OBG
1718 S INGRAM
SEDALIA 65301
LAFFOON,ROBERT,G, GS
204 RUBY
SWEET SPRINGS 65351
LAMY,JOHN,E, GS
400 DAL-WHI-MO COURT
SEDALIA 65301
LOWE,ALVIN,L, FP
621 W 16TH
SEDALIA 65301
MADDOX,ALBERT,R,
116 1/2 W MAIN
SEDALIA 65301
OWENS,JOHN,HOWARD, PTH
BOTHWELL MEMORIAL HOSPITAL
SEDALIA 65301
PROCTOR,DONALD,C, GP
700 S LIMIT ST
SEDALIA 65301
ROBERTS,PAUL,A, GP
110 W MARSHALL
SWEET SPRINGS 65351
SNOWE,ROBT,JOEL, PO
PROJECT HOPE
ATTN R SNOWE MD
WASHINGTON DC 20007
STAUFFACHER,C,GORDON, GP
700 S LIMIT AVE
SEDALIA 65301
STEWART,ROBT,H, R
201 DRIFTWOOD DR
SEDALIA 65301
STOCKWOOD,ROBT,C, OBG
1718 S INGRAM
SEDALIA 65301
SULL,WON-JONG, GS
1501 SOUTH GRAND
SEDALIA 65301
VAN DYKE,ELMER,HAROLD, OBG
1718 S INGRAM
SEDALIA 65301
WALTER,ARCHIE,L, GP
1000 WEST 7TH STREET
SEDALIA 65301
WORLEY,CHAS,A, FP
204 RUBY ST
SWEET SPRINGS 65351

## 186—PIKE

GLENN,EDWARD,A,
14 LAKESHORE DR
BOWLING GREEN 63334
JACKSON,EDWARD,KURZ, FP
215 S 3RD ST
CLARKSVILLE 63336
LEWELLEN,CHAS,HOLLOWAY, GP
120 PROFESSIONAL BLDG
LOUISIANA 63353
MARTIN,WENDELL,JOE, GP
211 S 3RD ST
LOUISIANA 63353
MIDDLETON,JOHN,W, FP
301A GEORGIA ST
LOUISIANA 63353
NICKELS,MATHEW,LEONARD, R
218 N 5TH ST
LOUISIANA 63353
PITNEY,PHILLIP,WILSON, FP
211 S 3RD
LOUISIANA 63353
STUERMAN,LAWRENCE,GEORGE, FP
211 S 3RD ST
LOUISIANA 63353
WILCOXEN,WM,B, OPH
BOWLING GREEN 63334

## 188—PLATTE

ALLEN,SAML,LLOYD, AN
3809 NW 62ND TERR
KANSAS CITY 64151
KIMBALL,IRELAND,W, FP
2709 HOSPITAL DR
NORTH KANSAS CITY 64116
THURMAN,HILL,COOK, GP
6600 TOWER DR
PARKVILLE 64152
VESCOVO,PAUL,C, IM
4106 VIVION RD
KANSAS CITY 64119

## 198—SALINE

BAIK,KENNETH,YOUNG, GS
HIGHWAY 20 W
MARSHALL 65340
BLALOCK,ROBT,W, IM
370 S ODELL ST
MARSHALL 65340
BOWDISH,PALMER,R, GP
604 E YERBY
MARSHALL 65340
KNIPSCHILD,BEDFORD,FLOYD, GP
370 S ODELL ST
MARSHALL 65340
LAWRENCE,JOHN,R, GP
905 S ODELL
MARSHALL 65340
MC BURNEY,CHAS,A, GP
307 N MAIN
SLATER 65349
MC CORKLE,E,LEE, GP
MARSHALL PROF BLDG
MARSHALL 65340
PAPRECK,K,THOMAS, FP
370 S ODELL
MARSHALL 65340
RAYNOR,RICHARD,CLARK, GP
370 S ODELL
MARSHALL 65340
REID,JAMES,ARMAND, FP
370 S ODELL
MARSHALL 65340
ROEHRS,MARVIN,E, GP
905 S ODELL ST
MARSHALL 65340

## 202—SEMO
## (Stoddard-New Madrid-Mississippi-Scott Counties)

AHLVIN,ROBT,CALHOUN, PTH
DELTA COMMUNITY HOSPITAL
SIKESTON 63801
ASKEW,JOHN,HENRY, GP
1012 N MAIN STREET
SIKESTON 63801
BLANTON,JOS,CULLEN, PO
1012 N MAIN ST
SIKESTON 63801
BOOTH,WM,VERDELL, GS
ONE MILE RD
DEXTER 63841
BRUCE,LEO,A, OPH
808 E WAKEFIELD
SIKESTON 63801
CAMPBELL,JAMES,W, GP
ADVANCE 63730
CATRON,DAVID,OWEN, FP
ONE MILE RD
DEXTER 63841
CHOUINARD,MICHAEL,P, HEM
1012 N MAIN ST
SIKESTON 63801
COLBERT,ROBT,STEPHEN, R
108 SALCEDO ROAD
SIKESTON 63801
COMEAU,RICHARD,JOS A, GP
W GRANT-CATALPA STS
DEXTER 63841
CRITCHLOW,WM,C, GP
BOX 1068
SIKESTON 63801
DAVIS,WILBUR,LEACH, GP
102 W COMMERCIAL ST
CHARLESTON 63834
DUNAWAY,HOWARD,ANDREW, OTO
P O BOX 806
SIKESTON 63801
DUPONT,JEAN,RENE, CD
1012 N MAIN ST
SIKESTON 63801
FRAZIER,ROBT,LEON, GP
116 N MAIN
CHARLESTON 63834
HEEB,MAX,A, GS
1012 N MAIN ST
SIKESTON 63801
HELFRICH,LORING, GS
1012 N MAIN
SIKESTON 63801
HENDERSON,THOS,WAYNE, GP
ONE MILE RD
DEXTER 63841
HILL,RONALD,T, GS
RT 3
DEXTER 63841
HO,GRINNY,H C, OBG
808 E WAKEFIELD ST
SIKESTON 63801

*KANDALAFT,FUAD,HABIB, GP
112 S WALNUT
DEXTER 63B41
KUO,GONG,TEN, OBG
103 SPRING DR
SIKESTON 63BDI
MAHBOUBI,AZIZ,O, U
BOX 653
SIKESTON 63BD1
MARTIN,ANDREW,DAVID, FP
BDB E WAKEFIELD
SIKESTON 63801
MASTERS,EDWIN,JORDAN, FP
1D12 N MAIN ST
SIKESTON 63BD1
PAGE,JESSE,W, IM
1D12 N MAIN ST
SIKESTON 63601
PFEFFERKORN,DAVID,ANDREW, IM
1D12 N MAIN
SIKESTON 63601
PINKSTAFF,THOS,HUGH, PD
1012 N MAIN ST
SIKESTON 63801
POPP,CARL,GEO, CD
1D12 N MAIN ST
SIKESTON 63BD1
REHM,RALPH,DALE, GP
6D3 N ELM
DEXTER 63841
RODRIGUEZ,GREGORIO,L, GS
P O BOX 394
CHARLESTON 63834
ROSENSTEIN,DANL,LESEM, PTH
215 KENNEDY DR
SIKESTON 63BDI
SARGENT,ALDEN,PACK, GP
BD6 E WAKEFIELD
SIKESTON 63601
SARGENT,JOHN,P, GS
BD6 E WAKEFIELD
SIKESTON 638DI
SHELL,WILLIAM,CLEVELAND, GE
1D12 N MAIN
SIKESTON 638D1
THORNTON,FRED,HOWELL, GS
1012 N MAIN ST
SIKESTON 6380I
THROGMORTON,HOWARD,B, GP
HIGHWAY 61 NORTH
SIKESTON 63801
WADDLE,THEODORE,LAMAR, GP
25 S LOCUST
DEXTER 63841
WALTON,JOHN,DOUGLAS, FP
1012 N MAIN
SIKESTON 63BD1
WALTRIP,ROY,THOS, FP
3D7 W MALONE
SIKESTON 63BD1
WHITAKER,TOPSY,HATCHER, GP
P O BOX 216
EAST PRAIRIE 63645
ZOFFUTO,ANTHONY,C, IM
ONE MILE RD
DEXTER 63841

## 206—SOUTH CENTRAL (Howell-Oregon-Texas-Wright-Douglas-Ozark Counties)

CALLIHAN,CHARLES,F, GP
WEST PLAINS 65775
COFFEE,AMOS,LEE, GP
P O BOX 16D
WILLOW SPRINGS 65793
COOPER,CLAUDE,W, GP
2D4 CHESTNUT
THAYER 65791
DELANY,CLARENCE,LEA, DR
1103 ALASKA AVE
WEST PLAINS 65775
DREYER,WM,F, GP
102 SW OAK CREST DR
HOUSTON 65483
FOWLER,MARVIN,L, FP
1004 BROADWAY
WEST PLAINS 65775
GENTRY,MARVIN,CARROL, GP
RURAL ROUTE 2
AVA 656D8
HASEK,JAMES,A, FP
6CD N BUSCH
MOUNTAIN GROVE 65711
HASEK,OLIVER,MARTIN, GP
6CD N BUSCH AVE
MOUNTAIN GROVE 65711
KANG,YOUNG,MOO, GS
P O BOX 725
214 MAIN ST
WEST PLAINS 65775
LANGEVIN,JACK,ARNOLD, GS
BOX 348
WEST PLAINS 65775
MAYUGA,LAUREANO,G, GS
514 PINE ST
CABOOL 65689
MORGAN,WINFREY,THOS, GP
1D04 W BROADWAY
WEST PLAINS 65775
RUNEZ,MANUEL,WHALEN, GS
1330 S HWY 63
HOUSTON 65483
SMITH,CLAUDE,FRANKLIN, FP
RT 2 BOX 6A
WILLOW SPRINGS 65793
SMITH,ROLLIN,H, GP
620 W MAIN
WEST PLAINS 65775
SPEARS,JOE,LEE, GP
CABOOL 65689
VANCE,GRAHAM,A, IM
BOX D-36
LANTON ROUTE
WEST PLAINS 65775
WALKER,AMBROSE,TAYLOR, FP
414 S 6TH ST
THAYER 65791
WALL,JOE,ABELS, GP
1D7 EAST PINE
HOUSTON 65483
WARREN,WM,HENRY, OS
RT 1
AVA 656D8
WILES,JACK,N, FP
WILES MED SERV LTD BOX 29D
WEST PLAINS 65775

## 126—ST. CHARLES-LINCOLN

ALTMAN,MARTIN,P, GE
2850 W CLAY ST
ST CHARLES 63301
ALUL,MOHAMMAD-ALI,HAMDI, PD
165D BOONSLICK
ST CHARLES 633D1
BAGWE,RANJIT,MADHARAO, CD
13D1 BOONSLICK
ST CHARLES 633D1
BAIRD,KEIM,LAUDERDALE, P
266D W CLAY ST
ST CHARLES 633D1
CABRERA,TOMAS,V,
79 COTTLEVILLE
ST PETERS 63376
CANTY,EUGENE,J, IM
114 N MAIN ST
ST CHARLES 63301
CARPENTER,JAMES,LOUIS, U
2 WESTBURY ROOM 6
ST CHARLES 633D1
CLEVER,HENRY,WM, PD
1301 BOONSLICK RD
ST CHARLES 633D1
CLEVER,VICTOR,G, OPH
1DDD7 KENNERLY ROAD
ST LOUIS 6312B
COMMERFORD,JOHN,F, GP
1301 BOONSLICK RD
ST CHARLES 633D1
CONNELLY,MICHAEL,WEBBER, OPH
#16 HUNTLEIGH DOWNS
ST LOUIS 6313I
CREECH,JOSEPH,C, GP
TROY 63379
CURRY,MICHAEL,JOS, IM
2850 W CLAY ST
ST CHARLES 63301
DAMRON,EDWARD,OSCAR, GP
309 GRIFFIN ST
ELSBERRY 63343
DAVIS,MARLOU,
302 SOUTH 2ND
ST CHARLES 633D1
DEL PIZZO,FERDINAND, OBG
1301 BOONSLICK
ST CHARLES 63301
DESAI,RAVINDRA,S, OTO
1650 BOONSLICK RD
ST CHARLES 63301
DI FILIPPO,EMIL,A, ORS
11D S KINGSHIGHWAY
ST CHARLES 633D1
DIETERICH,RUSSELL, OBG
13D1 BOONSLICK
ST CHARLES 633DI
DU MONTIER,RENE,J, GP
302 S MAIN
O'FALLON 63366
DULING,GERALD,JAMES, PD
3 SHAWNEE DR
ST CHARLES 6330I
DUNCAN,DAVID,TERRY, OBG
2 WESTBURY DR
ST CHARLES 63301
FELDER,JAMES,PARHAM, GS
208 S 5TH
ST CHARLES 63301
FLEMING,ROBT,J, OPH
12D FIRST CAPITOL DR
ST CHARLES 6330I
GOLDKAMP,JOHN,DAVID, PD
2 WESTBURY
ST CHARLES 633D1
GORE,GLENN,LELAND, OBG
165D BOONSLICK RD
ST CHARLES 633DI
HAMMES,ROMAN,ELDER, PD
100D LAKE ST LOUIS BLVD
LAKE SAINT LOUIS 63367
HETLAGE,LOUIS,P, GS
1004 E CHERRY ST
TROY 63379
KAMADA,TSUTOMU, GS
115 W PITMAN
O'FALLON 63366
KEEFE,DAVID,MICHAEL, PD
#2 WESTBURY DRIVE
ST CHARLES 633DI
KELLER,ROBT,MICHAEL, GP
704 W PEARCE BLVD
WENTZVILLE 63385
KEOHANE,MARK, ORS
#7 WINDRUSH CREEK E
CREVE COEUR 6314I
KINGSBURY,ROBT,JOHN, GS
222 S 2ND ST
ST CHARLES 6330I
KISTER,GEO,E, GP
236 THOMAS ST
ST CHARLES 63301
LINSENMEYER,CHARLES,M, ORS
110 SOUTH KINGSHIGHWAY
ST CHARLES 633DI
MEYERS,JERRY,RICHARD, GS
4511 FOREST PARK AVE
ST LOUIS 63106
MUENSTER,VINCENT,P, GS
2850 W CLAY ST
ST CHARLES 633D1
MUHM,HARVARD,YALE, GS
13DI BOONSLICK
ST CHARLES 633DI
NEUBEISER,BEN,LAWRENCE, GS
1628 NE 6TH CT
FORT LAUDERDALE FL 333DI
OBANDO,FRANCISCO,JOSE, GP
TROY 63379
OLSON,RICHARD,OTTO, GS
2650 W CLAY ST
ST CHARLES 633D1
ORDOUKHANIAN,TATOOL,A, PD
THE CHILDREN'S CLINIC
165D BOONSLICK RD
ST CHARLES 63301
PERNA,VINCENT,PATRICK, PTH
11636 ADMINISTRATOR DR
CREVE COEUR 63141
POGGEMEIER,WM,H, FP
304 S 2ND ST
ST CHARLES 63301
RAHMAN,MOHAMMED,H, PD
285D W CLAY ST
ST CHARLES 633D1
REISA,RONALD,CRAIG, OBG
2 WESTBURY
ST CHARLES 63301
ROTER,ALEXANDER,M, OBG
2 WESTBURY DR
ST CHARLES 633DI
ROTHER,PAUL,H, IM
13DI BOONSOICK RO
ST CHARLES 633DI
ROXAS,GENEROSO,P, IM
2 WESTBURY DR
ST CHARLES 633D1
RUGGLES,JAMES,G, PTH
11636 ADMINISTRATION DR
CREVE COEUR 6314I
SCHNEIDER,THOS,AQUINAS, GS
285D W CLAY
ST CHARLES 633D1
SCHUETZ,ALFRED, IM
13D1 BOONSLICK
ST CHARLES 633DI
*SILL,WILLIAM, FP
235 SHELBURNE DR
ST CHARLES 633D1
SMOLLER,MARTIN,BORIS, IM
14 COLONIAL HILL PKWY
ST LOUIS 63141
SOUCY,JOHN,CLOVIS, IM
2850 W CLAY ST
ST CHARLES 63301
STEIMAN,BARRY, OBG
11636 CHIEFTAIN
CREVE COEUR 63141
SUAREZ-SOLAR,PEDRO,LUIS, P
136D S 5TH ST SUITE 27D
ST CHARLES 633DI
TASSI,ALBERT,ANTHONY, GS
6D1 INDIAN HILLS
ST CHARLES 6330I
TEJERO,JONAS,S, IM
547 FIRST CAPITOL DR
ST CHARLES 63301
THIELE,OTTO,K, GP
2 WESTBURY
ST CHARLES 633DI

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* Doctor of Osteopathy

UHLEMANN,JOHN,H, O
1301 8DONSLICK
ST CHARLES 63301
VAFI,HDUSHANG, P
10004 KENNERLY RD
SUITE 215
ST LDUIS 63128
VART,GARY,RICHARO, OBG
1650 BOONSLICK
ST CHARLES 63301
VIGHI,JAMES,RICHARD, OTO
2850 W CLAY
ST CHARLES 63301
WALSH,MARTIN,J, IM
#8 MILL RACE CT
ST PETERS 63376
WESTERFELD,RDY,AUGUST, PD
1301 BODNSLICK
ST CHARLES 63301
WIPFLER,EARL,JOHN, GS
222 S SECOND
ST CHARLES 63301
YAEGER,GERALD,A, GP
2444 W CLAY ST
ST CHAKLES 63301

## 190—ST. LOUIS

AACH,RICHARD,DAVID, GE
BARNES HOSPITAL PLAZA
ST LDUIS 63110
ABADA,ROLAND, AN
4989 BARNES HOSP PLAZA
ST LOUIS 63110
ABEL,CHAS,CASPAKI, IM
4511 FDREST PARK
ST LOUIS 63108
ABEL,OLIVEK, IM
4511 FOREST PARK BLVD
ST LDUIS 63108
ABELARDD,MIGUEL,LIGDN, IM
300 S GRAND
ST LDUIS 63139
ABELL,WALTER,E, PH
6261 REBEN PL
ST LOUIS 63139
ABINDJA,CONRADO,BAMBAO, IM
4909 LINDENWDOD
ST LOUIS 63109
ABDDEELY,DANIEL, R
1506 ANDREW DR
ST LOUIS 63122
ABRAMS,MORRIS, U
4625 LINDELL BLVO STE 319
ST LOUIS 63108
ABRAMSON,CHAS,LOUIS, R
141 N MERAMEC
ST LOUIS 63105
ACKER,HARRY,L, PM
950 FRANCIS
ST LOUIS 63105
ACKERMAN,LAUREN,V, PTH
#8 CHICKADEE WAY
STRANGE NECK SETAUKET
EAST SETAUKET NY 11733
ADELMANN,EUGENE, N
1035 BELLEVUE
ST LOUIS 63117
DEYEMI-DORO,HENRY,O, GS
2601 N WHITTIER
ST LOUIS 63113
DLER,BENARO,C, OTO
4511 FOREST PARK BLVO
ST LOUIS 63108
FUWAPE,EMMANUEL,A, GS
2601 N WHITTIER
ST LOUIS 63113
GASINO,ARMELA,M RESUMA, GP
#6 WEST SHORE VILLAGE
CUBA 65453
GASINO,GAUDENCIO,LIMBO, OBG
#20 HUGHES FORD ROAD
SULLIVAN 63080
GRESS,HARRY, PTH
8631 OELMAR BLVD
ST LOUIS 63124
GUINALDO,JAIME,A, IM
9313 MANCHESTER RO
ST LOUIS 63119
HAOI,ABO,UL AHAD, IM
13029 AMBOIS DR
ST LOUIS 63141
HERN,ARCHIBALO,MARK C, IM
3915 WATSON RO
ST LOUIS 63109
LERING,GEO,H, OBG
621 S NEW BALLAS STE 560
ST LOUIS 63141
HMAD,BASHIR, AN
5900 BOND
EAST ST LUUIS IL 62207
UJA,ARJANDAS,L, P
MENTAL HEALTH INSTITUTE
BOX 338
CLARINOA IA 51632

AITKEN,LDUIS,F, DIA
4989 BARNES HOSPITAL PLAZA
5102 QUEENY TOWER BLDG
ST LOUIS 63110
AKER,UMIT,TEKIN, CD
950 FRANCIS
ST LOUIS 63105
AKYOL,SALIM, CD
5505 DELMUR STE 506
ST LOUIS 63112
ALBERT,INGRID, D
2428 WOODSDN
ST LOUIS 63114
ALEGRE,JORGE,MAXIMO, IM
5535 DELMAR BLVD
ST LOUIS 63112
ALEKSANDER,BERNARDD,G, P
1420 GRATTAN
ST LOUIS 63104
ALLEN,HENRY,C, PTH
2821 N BALLAS RD
ST LOUIS 63131
ALLEN,HOLLIS,N, PTH
2821 NDRTH BALLAS RD
ST LDUIS 63131
ALLEN,MELVIN,A, DBG
3555 SUNSET OFFICE DR
ST LDUIS 63127
ALLEN,WILLARD,M, OBG
UNIV OF MARYLAND HOSP
BALTIMDRE MD 21201
ALLEN,WM,E, R
4951 MAFFITT PL
ST LOUIS 63113
ALMIRON,DSIAS,ABUAN, GS
120 PRDGRESS PKWY
MARYLAND HEIGHTS 63043
ALONSO-YAGUE,PASCUAL, IM
330 NORTHLAND MEDICAL BLDG
ST LDUIS 63136
ALDNSO,JDSE,MARIO V, GP
10547 KENNERLY DRIVE
ST LDUIS 63128
ALPERN,LOUIS,M, DPH
BARNES HOSPITAL PLAZA
ST LOUIS 63110
ALTHEIDE,JOHN,P, U
4605 LINDELL BLVD
ST LOUIS 63108
ALVAREZ,LUIS,LIBERTO, PTH
VETERANS ADMINISTRATIDN HOSP
1201 NW 16TH ST
MIAMI FL 33125
ALVIS,EDMUNO,B, OPH
211 N MERAMEC
ST LOUIS 63105
AMADO-LEOO,OAVIO,E, IM
300 S GRAND BLVD
ST LOUIS 63103
AMANAT,HABIBOLLAN, EM
232 STN WOODSMILL
ST LUKES HOSPITAL
CHESTERFIELD 63017
AMIN,NAVIN,P, OPH
607 N GRAND STE 425
ST LOUIS 63103
AMJAD,MOHAMMAD,TAGHI, PO
1211 BLAIRSHIRE OR
BALLWIN 63011
ANOERSON,CHARLES,BERNARD, GS
6343 ALEXANOER DR
CLAYTON 63105
ANDERSON,JOHN,MAXEY, P
100 N EUCLID
ST LOUIS 63108
ANGLO,LUIS,B, GP
3912 RITZ CTR
ST LOUIS 63125
ANSTEY,GEO,C, OBG
10449 ST CHARLES ROCK RD
ST ANN 63074
ANSTEY,JOHN, OBG
#15 HORTENSE PL
ST LOUIS 63108
ANTHONY,ELWYN,JAMES, CHP
369 N TAYLOR AVE
ST LOUIS 63108
AQUINO,TOMAS, PTH
615 S NEW BALLAS RD
ST LOUIS 63141
ARCELONA,JESUS, GP
3535 S JEFFERSON
ST LOUIS 63118
ARCHER,CAROL,RUTH, R
1325 S GRANO
ST LOUIS 63104
ARIAS,FERNANDO, OBG
4911 BARNES HOSP PLAZA
ST LOUIS 63110
ARNESON,AXEL,N, GYN
4511 FOREST PARK
ST LOUIS 63108
ARNEY,WM,G, P
16 HAMPTON VILLAGE
ST LOUIS 63109
ARNOLO,KENNETH,JEROME, GS
4960 AUOUBON AVE
ST LOUIS 63110

ARNOT,JOHN,P, ORS
1034 S BRENTWOOD BLVD
SUITE 650
RICHMDND HEIGHTS 63117
ARRIBAS,NEVA,POBRE, OPH
QUEENY TOWER BLDG STE 5103
ST LOUIS 63110
ASGHAR,MDHAMMAD, DTO
HOMER G PHILLIPS HOSP-OTO DPT
ST LOUIS 63113
ASHBY,RICHARD, NS
621 S NEW BALLAS
ST LOUIS 63141
AUER,ARTHUR,IRWIN, GS
667 LANGTON
ST LOUIS 63105
AUFDER HEIDE,G,RUSSELL, IM
216 NDRTHLAND MEDICAL BLDG
ST LOUIS 63136
AUGUSTE,MELEDAIN, PD
4400 LINDELL B-1
ST LDUIS 63108
AUGUSTIN,CESAR, R
17 FRIESE DR
ST LOUIS 63132
AVIOLI,LOUIS,V, IM
216 S KINGSHIGHWAY
ST LOUIS 63110
AYKENT,YAVUZ, CD
950 FRANCIS PL
ST LOUIS 63105
AYLWARD,HOWARD,J, PS
6651 CHIPPEWA
ST LOUIS 63109
AZUMA,NDBUTAKA, GP
3901 THOLOZAN
ST LDUIS 63116
BABKA,JDS,JOHN, GS
29 BELLERIVE COUNTRY CLUB
GROUNDS
ST LDUIS 63141
BACKER,MATTHIAS,H, OBG
10345 WATSON RD
ST LOUIS 63127
BADGER,VIRGINIA,MAE, ORS
CARRIE TINGLEY HOSPITAL
1400 SDUTH BROADWAY
TRUTH-CONSEQUENCE NM 87901
BAHL,OM,P, CD
2650 TELEGRAPHA
ST LOUIS 63125
BAILEY,DRENNAN, GS
6356 CLAYTON RO
ST LOUIS 63117
BAJAJ,ARUNKUMAR,R, EM
500 CHURCH
GEN HOSP
HARTSVILLE TN 37074
BALOWIN,RICHARD, ORS
3660 VISTA AVE
ST LOUIS 63110
BALLAL,H,SATISHCHANDRA, IM
3915 WATSON RO
ST LOUIS 63109
BALLINGER,WALTER,F, GS
4960 AUDUBON AVE
ST LOUIS 63110
BANOLE,OONALD,F, P
3801 JANUARY AVE
ST LOUIS 63109
BANEZ,COLITA,L REGNER, P
5400 ARSENAL
ST LOUIS 63144
BANTON,MILAGROS,T R, IM
13634 PEACOCK FARM RD
ST LOUIS 63131
BANTON,THOMAS,J, ORS
12255 DE PAUL OR
BRIOGETON 63044
BANTON,WM,C, PH
801 S BRENTWOOD
ST LOUIS 63105
BAROSLEY,JOHN,LESTER, R
621 S NEW BALLAS RD
ST LOUIS 63141
BARNER,HENDRICK,BUYER, CO
1325 S GRAND BLVD
ST LOUIS 63104
BARRETT,SCOTT,R, OBG
5505 DELMAR
ST LUUIS 63112
BARTLETT,ROBT,W, GS
6459 WYDOWN RD
ST LOUIS 63105
BARTNICK,MITCHEL,L, GP
RR 2 BOX 38
DE SOTO 63020
BASHITI,MOHAMMAD,F, AN
660 S EUCLID
ST LOUIS 63110
BAUER,EUGENE,ANOREW, D
BARNES HOSPITAL PLAZA
ST LOUIS 63110
BAUER,JOHN,O, PTH
104 NORTHLAND MED BLOG
ST LOUIS 63136

BAUER,MARIA,ANTONI, OBG
3214 PRINCETON
GRANITE CITY IL 62040
BAUER,SPOMENKO, AN
BARNES HOSPITAL PLAZA
DEPT OF ANESTHESIOLOGY
ST LOUIS 63110
BAULA,ARMINDO,GUERRERO, R
609 JEFFERSONIAN DR
ST LOUIS 63125
BAUMGARTEN,WALTER, IM
1034 S BRENTWOOD BLVD STE 958
ST LOUIS 63117
BAUSCHARD,FREDERICK,O, O
7157 PERSHING
ST LOUIS 63130
BEARE,J,BYRON, U
777 S NEW BALLAS RD
ST LOUIS 63141
BEATO,DAVID,LEWIS, IM
6305 DEVONSHIRE
ST LOUIS 63109
BEATY,WM,R, OBG
35 MUILFIELD LANE
ST LOUIS 63141
BECKER,BERNARD, OPH
660 S EUCLID
ST LOUIS 63110
BECKER,EDWARD,JENNINGS, U
511 SO WARSON RD
ST LOUIS 63124
BECKER,STANLEY,CLIFFORD, OPH
4401 HAMPTON
ST LOUIS 63109
BECKETTE,EDMUND, OBG
1245 GRAHAM
ST LOUIS 63139
BECKMAN,DONALD,ERWIN, GP
4205 VIRGINIA AVE
ST LOUIS 63111
BEHBAHANI,PARVIZ,MORSHED, AN
ST LOUIS UNIV MED DEPT ANES
ST LOUIS 63104
BEHRENS,DONALD,THEODORE, GS
3654 S GRAND AVE
ST LOUIS 63118
BEHRENS,GERALD,LEE, GS
11271 HERMITAGE HILL PLACE
ST LOUIS 63131
BEIDLE,RAYMOND,JOS, PD
500 NW PLAZA-RM 513
ST ANN 63074
BELANCOURT,DUNET,F, IM
600 UNION
ST LOUIS 63106
BELEW,JOE,EDWARD, OBG
777 S NEW BALLAS RD STE 100-E
ST LOUIS 63141
BELL,MARTIN,JAY, POS
500 S KINGSHIGHWAY
ST LOUIS 63110
BENNETT,JOHN, OBG
6150 OAKLAND
ST LOUIS 63139
BENNETT,KENNETH,JOHN, GS
456 N NEW BALLAS RD
ST LOUIS 63141
BENSON,JOHN,F, OBG
3737 N KINGSHIGHWAY
ST LOUIS 63115
BERARD,LOUIS,N, U
612 OLIVE ST
ST LOUIS 63101
BERG,EDWARD,FRANK, OPH
5 CEDARCREST
ST LOUIS 63132
BERG,LEONARD, N
4989 BARNES HOSP PLAZA-RM 5106
ST LOUIS 63110
BERG,RALPH, GP
3203 S GRAND BLVD
ST LOUIS 63118
BERGMAN,HUGO,F, GP
8321 N BROADWAY
ST LOUIS 63147
BERGMANN,DWAYNE,LEROY, U
6500 CHIPPEWA ST
ST LOUIS 63109
BERGNER,GRACE,E, IM
114 N TAYLOR AVE
ST LOUIS 63108
BERLAND,HARRY,ISADORE, R
141 N MERAMEC
CLAYTON 63105
BERMAN,WM, OBG
4910 FOREST PARK BLVD
ST LOUIS 63108
BERNI,ANTHONY,ARTHUR, R
777 S NEW BALLAS ROAD
ST LOUIS 63141
BERRY,JOHN,WALTNER, IM
621 S NEW BALLAS RD-STE 266
ST LOUIS 63141
BETTONVILLE,PAUL,J, IM
6331 PERSHING
ST LOUIS 63130

BETZ,EDWARD, IM
DEPT OF MED
KAISER HOSP
VAN NUYS CA 91407
BIDDY,RALPH,LEO, P
965 MASONRIDGE RD
ST LOUIS 63141
BIELLO,DANIEL,R, DR
510 SOUTH KINGSHIGHWAY
ST LOUIS 63110
BIGGS,JOHN, P
1034 SO BRENTWOOD SUITE 1160
ST LOUIS 63117
BILLY,LAWRENCE,JOHN, GS
1325 S GRAND
ST LOUIS 63104
BILSKY,NATHAN, IM
964 CLAYTONBROOK DR
BALLWIN 63011
BINDBEUTEL,DONALD,A, GS
25 WILLOW OAK LANE
ST LOUIS 63122
BINDER,MORTON,A, IM
4652 MARYLAND AVE
ST LOUIS 63108
BINNINGTON,H,BRADLEY, GS
621 S NEW BALLAS RD
ST LOUIS 63141
BIRCHER,JOHN,L, R
3932 FEDERER PL
ST LOUIS 63116
BIRO,H,WALDO, P
10267 CLAYTON
ST LOUIS 63124
BIRGE,CLIFFORD,ALLEN, END
12 RIDGETOP
RICHMOND HEIGHTS 63117
BISHOP,MARY,C MC FAYDEN, P
3430 ROSSMOOR PKWY #2
WALNUT CREEK CA 94595
BISNO,DANL, OPH
8000 BONHOMME AVE
CLAYTON 63105
BLACK,JOSEPH,T, N
4989 BARNES HOSP PLAZA
ST LOUIS 63110
BLAIR,JOHN,DOUGLAS, PTH
1465 S GRAND
ST LOUIS 63104
BLAIR,OLGA,MENDEZ, PTH
1402 S GRAND
ST LOUIS 63104
BLAIR,VILRAY,PAPIN, ORS
9 STONEY BROOK
ST LOUIS 63124
BLATH,RICHARD,ALAN, U
777 S NEW BALLAS RD
ST LOUIS 63141
BLOCK,ARNOLD,SYLVAN, P
100 N EUCLID AVE STE 601
ST LOUIS 63108
BLOUNT,LEE, GS
3737 N KINGSHIGHWAY
ST LOUIS 63115
BLYTHE,JAMES,GRANVILLE, OBG
615 S NEW BALLAS RD
ST LOUIS 63141
BOCCARDO,HUMBERTO, CO
915 NORTH GRAND
ST LOUIS 63106
BOCKELMAN,CLIFFORD,H, IM
2615 BRENTWOOD BLVD
ST LOUIS 63144
BOEDEKER,ROY,V, OBG
1035 BELLEVUE AVE
ST LOUIS 63117
BOHIGIAN,GEO,MICHAEL, OPH
211 N MERAMEC
ST LOUIS 63105
BOHLING,COREY,A, CO
621 S NEW BALLAS ROAD
ST LOUIS 63141
BOLDIZAR,ALBERT,GEO, OPH
2821 N BALLAS RD
ST LOUIS 63131
BOLOT,THOS,HENRY, IM
3394 MC KELVEY RD
BRIDGETON 63044
BOLLOZOS,GEORGE,O, PTH
3933 S BROADWAY
ST LOUIS 63118
BOLTON,ROBT,LE ROY, GS
740 S 4TH ST
ST LOUIS 63102
BONACORSI,JOHN, OTO
12255 DE PAUL DR
BRIDGETON 63044
BOND,LESLIE,FEE, GS
3400 N KINGS HWY
ST LOUIS 63115
BONDURANT,BRYCE,H, OBG
134 FRONTENAC FOREST
ST LOUIS 63131
BONFANTI,ALBERT,LEWIS, OBG
P O BOX 4146 JENNINGS STATION
ST LOUIS 63136

BONIUK,ISAAC, OPH
4989 BARNES HOSP PLAZA
ST LOUIS 63110
BOONKHAM,CHOTCHAI, IM
3466 BRIDGELAND DR
BRIDGETON 63044
BOROWSKY,BENJ,ARTHUR, IM
4910 FOREST PK
ST LOUIS 63108
BOUHASIN,JOHN,O, HEM
3720 HAMPTON
ST LOUIS 63109
BOURJOLLY,WILSON,P, OPH
106 AMBLESIDE LANE
ST LOUIS 63141
BOURKE,THOS,EDWARD, IM
3394 MC KELVEY RD
BRIDGETON 63044
BOVERI,JOS,CHAS, OBG
1662 POINT OAK DR
ST LOUIS 63131
BOWDERN,EDWARD,H, GS
#2 BERKSHIRE
RICHMOND HEIGHTS 63117
BOWEN,STEPHEN,F, OPH
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109
BOWERMAN,HAROLD,H, OTO
607 N GRAND BLVD
ST LOUIS 63103
BOWERS,JAMES,EDWARD, PD
12166 BIG BEND BLVD
KIRKWOOD 63122
BOWERSOX,WARREN,A, GS
319 N 1ST ST
PACIFIC 63069
BOWLES,WM,TSCHARNER, U
4989 BARNES HOSP PLAZA
ST LOUIS 63110
BOYARSKY,SAUL, U
4960 AUDUBON AVE
ST LOUIS 63110
BRADLEY,RICHARD,V, GS
1034 S BRENTWOOD BLVD
ST LOUIS 63117
BRADY,HARRY,ROBT, OPH
1609 DUNMRR DR
ST LOUIS 63131
BRANCATO,DONALD,HAYWOUD, ORS
11155 DUNN RD
APT 127
ST LOUIS 63136
BRANGLE,ROBT,WM, PTH
765 HIGH HAMPTON RD
ST LOUIS 63124
BREMER,RITA,FRIEDA, IM
3024 ORTON ST
ST CHARLES 63301
BREMSER,HARRY,L, GP
6742 PLAINVIEW AVE
ST LOUIS 63109
BRENNAN,DANL,JOS, PS
777 S NEW BALLAS RD
ST LOUIS 63141
BRENNAN,GEO,A, OBG
3535 S JEFFERSON
ST LOUIS 63118
BRENNAN,ROBT,ALEXIS, OBG
3535 S JEFFERSON
ST LOUIS 63118
BRENNAN,ROBT,V, U
114 N TAYLOR
ST LOUIS 63122
BRERETON,ROBT,LOFTUS, GS
206 N CLAY AVE
KIRKWOOD 63122
BRICKER,EUGENE,M, GS
2410 RIDGEFIELD RD
COLUMBIA 65201
BRIELMAIER,CHARLES, AN
6420 CLAYTON
ST LOUIS 63117
BRIGHAM,DAVID,WM, OPH
1103 DOVERGATE
ST LOUIS 63122
BRIMMO,A,I, TS
6000 W FLORISSANT
ST LOUIS 63136
BRODEUR,ARMAND,EDWARD, POR
1465 S GRAND AVE
ST LOUIS 63104
BRONSON,SHAEL,S, P
777 S NEW BALLAS RD
ST LOUIS 63141
BROOKES,ROBT,O, P
5505 DELMAR BLVD
ST LOUIS 63112
BROUN,GORONWY,O, HEM
6359 WATERMAN AVE
ST LOUIS 63105
BROWN,JAMES,M, PH
11936 BETH DR
ST LOUIS 63126
BROWN,SEYMOUR, AN
2421 BAXTON WAY
CHESTERFIELD 63017

BRUCE,HELEN,M LYNCH, PH
3263 HAWTHORNE BLVD
ST LOUIS 63104
BRUNS,KENNETH, AN
7700 FLORISSANT RD
ST LOUIS 63121
BRYAN,JAMES,H, OPH
950 FRANCIS PLACE
CLAYTON 63105
BRYAN,WM,THOS KIMLIN, OTO
950 FRANCIS PL
CLAYTON 63105
BUCY,JAMES,G, U
1034 S BRENTWOOD
ST LOUIS 63117
BUDD,JOHN,J, IM
9012 MANCHESTER RD
ST LOUIS 63144
BUETTNER,JOHN,BRIGHAM, GS
3106 QUEENY TOWERS
BARNES HOSP PLAZA
ST LOUIS 63110
BURDE,RONALD,MARSHALL, OPH
660 S EUCLID AVE
ST LOUIS 63110
BURDGE,ROBERT,E, ORS
1325 S GRAND BLVD
ST LOUIS 63104
BURGESS,DEAN, OPH
9380 ROBYN HILL
ST LOUIS 63127
BURKE,ROBT,JOHN, PD
6379 DEVONSHIRE AVE
ST LOUIS 63109
BURKHART,EDWARD,F, O
621 S NEW BALLAS RD
ST LOUIS 63141
BURMEISTER,RAY,WM, IM
INTERMED MED CONSULTANTS INC
3535 SO JEFFERSON SUITE 319
ST LOUIS 63118
BURNS,FRANCIS,JOHN, CRS
1035 BELLEVUE AVE
ST LOUIS 63117
BURNS,J,R, U
1325 SOUTH GRAND
ST LOUIS 63104
BURR,DONALD,CLARENCE, R
601 VERNOR
NASHVILLE IL 62263
BURROWS,STEPHEN,D,
510 S KINGSHIGHWAY
ST LOUIS 63110
BURST,DONALD,D, ORS
6500 CHIPPEWA
ST LOUIS 63109
BUSCH,ANTHONY,K, P
2101 SIDNEY ST
ST LOUIS 63104
BUSSE,PAUL, R
120 W MERMOD
ST LOUIS 63122
BUSSMANN,DONALD,W, CD
4 WOOD ACRE RD
ST LOUIS 63124
BUSSMANN,DONALD,W, U
1254 BENTOOK
ST LOUIS 63122
BUTCHER,HARVEY,R, GS
4989 BARNES HOSP PLAZA
ST LOUIS 63110
BYRNE,PAUL,ADAM, PD
4211 BAYLESS AVE
ST LOUIS 63123
BYRUM,FRITZ,ARNOLD, GP
650 MANCHESTER RD
BALLWIN 63011
CABONCE,AUGUST,L, FP
6629 PARKER RD
FLORISSANT 63033
CACIOLO,CARLO,PAUL, CD
3654 S GRAND BLVD
ST LOUIS 63118
CADICE,JOHN,BENARD, OBG
1245 GRAHAM RD
APT 408
FLORISSANT 63031
CADIZ-ROJOLES,ADORACION, PD
12116 PRESTON PARK LANE
ST LOUIS 63141
CAJILI,ANTONIO,TAGLE, IM
300 S GRAND
ST LOUIS 63103
CALLAGHAN,GERARD,MICHAEL, OBG
1035 BELLEVUE
ST LOUIS 63117
CALLAHAN,DANIEL, PS
1325 S GRAND BLVD
ST LOUIS 63104
CALLAHAN,JOS,DREW, CHP
22 W BRENTMOOR PARK
ST LOUIS 63105
CALOONEY,MARTIN,M, PD
7247 DELMAR BLVD
ST LOUIS 63130
CAMEL,H,MARVIN, OBG
310 TANGLEWOOD DR
ST LOUIS 63124
CAMPOS,FRANCISCO,JOSE, PTH
11636 ADMINISTRATION DR
ST LOUIS 63141
CANAAN,SAML,ADAMS, OPH
607 N GRAND BLVD STE 601
ST LOUIS 63103
CANLAS,ARSENIO,LACSON, GS
7670 SUNRAY LANE
ST LOUIS 63123
CANNON,EDWARD,MICHAU, U
1034 BRENTWOOD BLVD STE 654
ST LOUIS 63117
CANTOR,HARVEY,EDWARD, CHN
11745 OLIVE ST RD
ST LOUIS 63141
CARLIN,M,RICHARD, U
1034 S BRENTWOOD BLVD
ST LOUIS 63117
CARLS,GARRY,LEE, R
6420 CLAYTON RD
ST LOUIS 63117
CARRANZA,MAURO,JAVIER, FP
P O BOX 10817
ST LOUIS 63129
CARROLL,GEO,A, GS
NO 5 DELCREST COURT
AP 102
ST LOUIS 63124
CARROLL,GRAYSON,L, U
1035 BELLEVUE
ST LOUIS 63117
CARTER,JOHN,FAHY, IM
29 BERKSHIRE
ST LOUIS 63117
CARY,JOHN,MILTON, IM
2621 N BALLAS RD
ST LOUIS 63131
CASE,MARY,E SCHMIDT, PTH
13001 DIETERLE LANE
ST LOUIS 63127
CASEY,EDWIN,J, OPH
4466 W PINE
ST LOUIS 63108
CASEY,ELIOT,CHAS, PD
615 S NEW BALLAS
ST LOUIS 63141
CASON,ELBERT,H, GS
1704 S BROADWAY
ST LOUIS 63104
CASSEL,MELVIN,ALFRED, GS
PARK MEDICAL GROUP INC
6550 KNOTT AVE
BUENA PARK CA 90621
CASTASUS,MANUEL,A, GS
600 N UNION BLVD
ST LOUIS 63108
CATANZARO,ANTHONY,F, GP
2705 CLIFTON AVE
ST LOUIS 63139
CATANZARO,FRANCIS,JOS, CD
1235 N HANLEY RD
UNIVERSITY CITY 63130
CAVANAGH,DENIS, OBG
UNIV OF SOUTH FL COLL
OF MED - DEPT OF OB-GYN
TAMPA FL 33612
CAYABYAB,PEDRO,C, GP
3610 S BROADWAY
ST LOUIS 63118
CHADARATANA,PHADUNG, OTO
12962 NANCY LEE DR
ST LOUIS 63141
CHALLONER,DAVID,REYNOLDS, IM
DEAN-ST LOUIS UNIV SCH MED
ST LOUIS 63104
CHAMNESS,JAMES,THOS, PS
1 ST ANDREWS DR
ST LOUIS 63124
CHAND,SURESH, CHP
ELFGEN BUILDING
604 E BROADWAY RD-SUITE 109
ALTON IL 62002
CHAPLIN,HUGH, IM
DEPT OF PREVENTIVE MED
BOX 8113
4566 SCOTT AVE
ST LOUIS 63110
CHARLES,BENJ,H, IM
1034 S BRENTWOOD BLVD STE 958
ST LOUIS 63117
CHARLES,FRANCOIS, CD
600 N UNION
ST LOUIS 63108
CHARNAS,RAYMOND,M, IM
1040 MASON RD N
ST LOUIS 63141
CHAVEZ,SALVADOR, GS
10010 KENNERLY RD
ST LOUIS 63128
CHEHVAL,MICHAEL,JOHN, U
1035 BELLEVUE AVE
ST LOUIS 63117
CHERRE,CHAS,JAMES, R
4511 FOREST PARK BLVD
ST LOUIS 63108
CHESANOW,ROBT,LAWRENCE, N
1515 LAFAYETTE AVE
ST LOUIS 63104
CHEUK,SHU-SUM, GS
5505 DELMAR RM 306
ST LOUIS 63112
CHIEFFI,MARGARET,JACKSON, A
6744 CLAYTON RD
ST LOUIS 63117
CHIPONGIAN,RAUL,ARBILO, OPH
1672 FOXLEIGH COURT
ST LOUIS 63131
CHISHTI,MUHAMMAD,ISHAQ, OPH
14558 AMSTEL CT
CHESTERFIELD 63017
CHIU,TAI-MAO, AN
6420 CLAYTON RD
ST LOUIS 63117
CHO,KYU,SOP, ORS
4919 FOREST PARK AVE
ST LOUIS 63108
CHOU,YEN-PING, PUD
ROBT KOCH HOSP
KOCH 63054
CIAPCIAK,STANLEY,JOS, GP
1502 ST LOUIS AVE
ST LOUIS 63106
CLARK,RICHARD,EDWIN, TS
4989 BARNES HOSP PLAZA
SUITE 3108 QUEENY TOWER
ST LOUIS 63110
CLASEMAN,WILMA,WINTER, PH
3237 LONGFELLOW BLVD
ST LOUIS 63104
CLAYCOMB,GERALD,K, OR
5535 DELMAR BLVD
ST LOUIS 63112
CLEARY,FRANK, OM
5247 MARDEL
ST LOUIS 63110
CLENDENIN,WILLIAM,W, P
1034 S BRENTWOOD
ST LOUIS 63141
COBB,MILTON,LAWRENCE, AN
BARNES HOSP PLAZA
ST LOUIS 63110
COBEN,LAWRENCE,ALLAN, N
660 S EUCLID BOX 8111
ST LOUIS 63110
COHEN,EDWARD, R
4511 FOREST PARK
ST LOUIS 63108
COHEN,HILLARD,K, IM
500 NORTHWEST PLAZA STE 417
ST ANN 63074
COLE,HARRY,ORSON, NS
5505 DELMAR BLVD
ST LOUIS 63112
COLLINS,HAROLD, TS
1716 KEMNONT RD
ST LOUIS 63124
COLLINS,ISABELLA,S,
1716 KENMONT RD
ST LOUIS 63124
COLLINS,JOHN,AUSTIN, GS
STANFORD UNIVERSITY HOSP
DEPT OF SURGERY
STANFORD CA 94305
COLOSI,NICHOLAS,JOS, OPH
14543 TRAMORE DR
CHESTERFIELD 63017
COMAS,MANUEL,RAMON, OBG
514 TENBY TERR
MANCHESTER 63011
COMENS,PHILLIP, IM
6651 CHIPPEWA
ST LOUIS 63109
COMENS,RUTH,CERF, AN
8826 WOODFOX
ST LOUIS 63127
CONNORS,JOHN,PHILLIP, GP
216 S KINGSHIGHWAY
ST LOUIS 63110
CONOYER,J,MICHAEL, GS
733 LOCKETT ROAD
ST LOUIS 63122
CONRAD,MARSHALL,B, ORS
100 NO EUCLID-SUITE 510
ST LOUIS 63108
CONVERY,PAUL,B, IM
3915 WATSON
ST LOUIS 63139
COOK,MARVIN, R
10010 KENNERLY RD
ST LOUIS 63128
COOPER,HENRY,T, IM
217 SE SEVERIN RD
PORT CHARLOTTE FL 33952
COOPER,JAMES,FRANKLIN, GS
12255 DEPAUL DR
SUITE 830
BRIDGETON 63044
COOPER,THEODORE, CD
DEAN CORNELL UNIV MED COLLEGE
1300 YORK AVE
NEW YORK NY 10021
COOPER,THOMAS,J, CLP
10010 KENNERLY
ST LOUIS 63128

COOPER,THOS,PERRY, EM
970 EXECUTIVE PARKWAY
SUITE 101
ST LOUIS 63141
COPP,RALPH, IM
4989 BARNES QUEENY TOWER
ST LOUIS 63110
CORDAY,ROBT,J, CHP
1465 S GRAND BLVD
ST LOUIS 63104
CORDONNIER,JUSTIN,J, U
7778 CROSS CREEK DR
ST LOUIS 63141
CORONADO,MARIO,A, OBG
10004 KENNERLY RD
ST LOUIS 63128
CORRIGAN,GILBERT,E, PTH
915 N GRAND
ST LOUIS 63106
CORVALAN,JUAN,CARLOS, P
SUITE 1160
1034 SOUTH BRENTWOOD BLVD
ST LOUIS 63117
COSTA,DOMINIC,VICTOR, GS
1212 S GRAND AVE
ST LOUIS 63104
COSTELLO,CYRIL,J, GE
621 S NEW BALLAS RD
ST LOUIS 63141
COSTELLO,JOS,P, IM
950 FRANCIS PL
ST LOUIS 63105
COSTEN,WILLIAM,S, ORS
777 S NEW BALLAS RD
ST LOUIS 63141
COVA,RENO,R, NS
12255 DE PAUL DRIVE SUITE 630
BRIDGETON 63044
COX,MARY,E, P
1034 S BRENTWOOD
ST LOUIS 63117
COXE,WM,S, NS
BARNES HOSP PLAZA
ST LOUIS 63110
CRADOCK,THOMAS,V, PD
1401 SOUTH GRAND
ST LOUIS 63104
CRAFTS,DAVID, NS
1325 S GRAND
ST LOUIS 63104
CRAIG,ALAN,GORDON, P
1035 BELLEVUE STE 202
ST LOUIS 63117
CRALLE,ROBERT,V, GS
12255 DE PAUL DR SUITE 160
BRIDGETON 63044
CRESPIN,STEPHEN,RALPH, IM
4 MC KNIGHT LANE
ST LOUIS 63124
CRISCIONE,JAMES,R, TS
4273 FLORA PLACE
ST LOUIS 63110
CRISCIONE,JAMES,S, AN
1837 GRASSY RIDGE
KIRKWOOD 63122
CROSSMAN,ROBT,W, RHU
1509 HOLLY DR
WEBSTER GROVES 63119
CROWELL,HUGH,CURRY, IM
9764 TESSON FERRY RD
ST LOUIS 63123
CRUZ,ELIGIO,CORNEJO, OBG
2821 N BALLAS RD
ST LOUIS 63131
CUBILLO,ENRIQUE, OR
730 MIDDLE POLO DR
ST LOUIS 63105
CUTLER,GORDON,BUTLER, IM
-3032 Q ST NW APT 4
WASHINGTON DC 20007
CUTLER,HAROLD,MASHA, OTO
141 N MERAMEC
ST LOUIS 63105
CZEBRINSKI,EDWARD,W, IM
3555 SUNSET OFFICE DR
ST LOUIS 63127
DAAKE,JOHN,W,
1325 S GRAND
ST LOUIS 63104
DAAKE,JOHN,WILSON, GS
48 PORTLAND PL
ST LOUIS 63108
DAGARTZIKAS,ANASTASIOS,K, OBG
12902 TUNDRA
TOWN AND COUNTRY 63131
DAHM,CHAS,HENRY, OBG
1009 JULLANA DR
BALLWIN 63011
DALTON,ARTHUR,REX, GS
35 N CENTRAL AVE
CLAYTON 63105
DAMES,RICHARD,J, IM
15 YORK DR
ST LOUIS 63117
DANFORTH,WM,H, OS
WASHINGTON UNIVERSITY
ST LOUIS 63130
DANGANAN,CANDIDO,SANGIL, AN
2206 VIEWROYAL DR
ST LOUIS 63131
DANGANAN,ELEANA,QUINTOS, AN
2206 VIEW ROYAL
ST LOUIS 63131
DANIS,PETER,GODFREY, PD
2821 N BALLAS RD
ST LOUIS 63131
DANIS,RICHARD,KRAMER, PDS
1401 S GRAND
ST LOUIS 63104
DANKNER,ARNOLD, A
1010 COLLINGWOOD
ST LOUIS 63132
DASH,IRA, A
6500 CHIPPEWA
ST LOUIS 63109
DASH,UDAYA,N, ORS
6500 CHIPPEWA ST
ST LOUIS 63109
DATTA,KAPAL,DEV, GER
601 S BRENTWOOD BLVD
ST LOUIS 63105
DATUIN,ALEJANDRO,M, P
1420 GRATTAN
ST LOUIS 63104
DAUM,WAYNE,J, IM
6461 DEVONSHIRE AVE
ST LOUIS 63109
DAVIS,MARTIN,WHEATLEY, IM
911 S BRENTWOOD BLVD
CLAYTON 63105
DAVIS,MARY,A, P
456 N NEW BALLAS RD STE 282
ST LOUIS 63141
DE CASTRO,EDWINO,TORDBIO, GP
3933 SOUTH BROADWAY
ST LOUIS 63118
DE JESUS CARBONELL,A, AN
615 S NEW BALLAS RD
ST LOUIS 63141
DE UNGRIA,ESTELITA,G, PD
2601 N WHITTIER ST
ST LOUIS 63113
DE UNGRIA,PABLO,C, OBG
6744 CLAYTON ROAD
ST LOUIS 63117
DE VERA,ANSON,E, AN
5085 REYNOSA DR
ST LOUIS 63128
DE VIVO,DARRYL,CLAUDE, N
500 S KINGSHIGHWAY BLVD.
ST LOUIS 63110
DEAKIN,V,ROGERS, U
4530 W PINE APT 201
ST LOUIS 63108
DEETHS,TONY,MATHIAS, OR
135 LADUEMONT DR
CREVE COEUR 63141
DEHNER,JONATHAN,D, R
26 LORENZO LANE-LA DUE
ST LOUIS 63124
DEL CARMEN,JAIME,JOVER, PTH
46 WORTHINGTON DR
MARYLAND HEIGHTS 63043
DEL VALLE,FERNANDO, P
777 S NEW BALLAS STE W 212
ST LOUIS 63141
DELCAU,CAREY,M, FP
3535 S JEFFERSON
ST LOUIS 63118
DENK,ALAN,FRANCIS, GS
1035 BELLEVUE AVE
ST LOUIS 63117
DESTOUET,JUDY,
4989 BARNES HOSP PLAZA
ST LOUIS 63110
DEVINE,JOHN,BERNARD, PUD
85 WILLMORE RD
ST LOUIS 63109
DEW,THOS,ALLEN, PUD
114 N TAYLOR
ST LOUIS 63106
DEWALD,PAUL,ADOLPH, P
4524 FOREST PARK BLVD
ST LOUIS 63108
DEWEIN,EDWARD,GEO, P
621 S NEW BALLAS RD RM 664
ST LOUIS 63141
DEZA,PLARIDEL, P
1420 GRATTAN
ST LOUIS 63141
DI LEO,SENATRO,WM, OBG
1245 GRAHAM ROAD
FLORISSANT 63031
DICK,EARL, P
1420 GRATTAN
ST LOUIS 63104
DIEMER,PETER,ANDREW, R
12302 IRONSTONE
ST LOUIS 63131
DILLARD,BURL,MAYES, GS
12166 BIG BEND RD-STE 311
ST LOUIS 63122
DMYTRYK,EUGENE,THOS, GS
621 S NEW BALLAS RD
ST LOUIS 63141
DODGE,PHILIP,ROGERS, CHN
DEPT OF PEDIATRICS WASH UNIV
500 S KINGSHIGHWAY
P O BOX 14871
ST LOUIS 63178
DOISY,PHILIP,PEREZ, IM
325 N KIRKWOOD RD
KIRKWOOD 63122
DOLAN,JOHN,THOS, GS
3915 WATSON RD
ST LOUIS 63109
DOMOND,LHERISSON, OBG
10282 CANTER WAY
ST LOUIS 63114
DONAHOE,JAMES,L, PD
901 CLAYTON
BALLWIN 63011
DONALDSON,ROBT,CLINTON, PS
VET ADMIN HOSP
ST LOUIS 63125
DONATI,ROBT,MARIO, NM
VET ADMIN HOSP NUCL MED
ST LOUIS 63106
DONOVAN,JOHN,F, GS
1035 BELLEVUE
ST LOUIS 63117
DONOVAN,THOS,JOSEPH, OTO
1014 ACCENT DR
ST LOUIS 63141
DOOLEY,JOS,MICHAEL, N
4989 BARNES HOSP PLAZA
ST LOUIS 63110
DORTON,ROBT,KING, IM
911 S BRENTWOOD BLVD
ST LOUIS 63105
DOUCETTE,RAYMOND,CONRAD, OBG
1034 S BRENTWOOD BLVD
ST LOUIS 63117
DOYLE,CHAS,RICHARD, GS
1035 BELLEVUE
ST LOUIS 63117
DRACE,CHAS,C, GS
19 E LOCKWOOD AVE
ST LOUIS 63119
DRAKE,WM,LORD, PTH
MISSOURI BAPTIST HOSP
3015 N BALLAS RD
ST LOUIS 63131
DRESCHER,EMMETT,BURK, GS
35 N CENTRAL
ST LOUIS 63105
DREWS,ROBT,CARREL, OPH
211 N MERAMEC
ST LOUIS 63105
DREY,NORMAN,WALTER, IM
950 FRANCIS PL STE 205
CLAYTON 63105
DREYER,CARL,JOS, OBG
45 GLEN ROAD
WEBSTER GROVES 63119
DUBUQUE,THEODORE,J, GS
1035 BELLEVUE
ST LOUIS 63117
DUEMLER,ROBT,HUGH, OBG
12166 BIG BEND BLVD
KIRKWOOD 63122
DUFFY,FRANCIS,GERARD, AN
8116 UNIVERSITY DR
ST LOUIS 63105
DWORKIN,SAUL, OBG
4632 S GRAND
ST LOUIS 63111
DYER,DALLAS,JOS, IM
3915 WATSON RD
ST LOUIS 63109
DZUNDZEV,PENCO,TODOR, GP
3601 S JEFFERSON AVE
ST LOUIS 63118
EACHEMPATI,RAMA,G, IM
14377 WOODLAKE DR SUITE 315
CHESTERFIELD 63017
EACHEMPATI,UMA,RAMAGOPAL, OBG
14377 WOODLAKE DR
SUITE 315
CHESTERFIELD 63017
EADES,DEE,WM, GP
6 KINGSBURY PL
ST LOUIS 63111
EADES,JOS,WM, PS
4910 FOREST PARK
ST LOUIS 63108
EAGLETON,MARK,D, R
777 S NEW BALLAS RD RM 121E
ST LOUIS 63141
EARP,RALPH,K, ORS
RR #2
MEXICO 65265
EBERLE,VINCENT,LOUIS, OBG
141 N MERAMEC AVE
ST LOUIS 63105
ECK,BIRKLE, IM
1819 CAMBERLY ROAD
ST LOUIS 63131
ECKERT,CLARENCE,T, GS
2295 GULF OF MEXICO DR APT B2S
LONGBOAT KEY FL 33548

| | | |
|---|---|---|
| EDELE,EUGENE,HARRY, | GP | 3890 FEDERER PL<br>ST LOUIS 63116 |
| EDELMAN,ALAN,HARVEY, | OR | 2821 N BALLAS RD<br>ST LOUIS 63131 |
| EDWARDS,JAMES,EARL, | CHP | 522 N NEW BALLAS RD<br>ST LOUIS 63141 |
| EDWARDS,JOS,CASTRO, | CO | 4989 BARNES HOSP PLAZA<br>ST LOUIS 63110 |
| EGAN,ROBT,CLARENCE, | GS | 7820 CARONDELET AVE<br>ST LOUIS 63105 |
| EGAN,THOS,FRANCIS, | R | 9852 NORTHBRIDGE<br>ST LOUIS 63124 |
| EIMER,CHAS,EUGENE, | OTO | 6 BEL AIR DRIVE<br>SIKESTON 63801 |
| EISEN,ARTHUR,Z, | D | BARNES HOSP PLAZA<br>ST LOUIS 63110 |
| ELIASSON,SVEN,GUSTAV, | N | 660 S EUCLID<br>ST LOUIS 63110 |
| ELLERSIECK,DOROTHY,M, | GP | 10437 EWELL<br>ST LOUIS 63137 |
| ELLIS,JEFFREY,JAMES, | R | 8133 BRIARHAVEN TR APT 303<br>ST LOUIS 63123 |
| ELLSASSER,JAMES,C, | ORS | 1034 SOUTH BRENTWOOD BLVD<br>SUITE 294<br>ST LOUIS 63117 |
| EMERAN,GEORGES,J, | U | 600 NORTH UNION<br>ST LOUIS 63108 |
| EPSTEIN,JAMES,MICHAEL, | IM | 114 N TAYLOR AVE<br>ST LOUIS 63108 |
| ERENMEMIS,RIFAT, | TRS | 1501 E BROADWAY<br>EAST ST LOUIS IL 62205 |
| RNST,EDWIN,CHAS, | R | 14377 WOODLAKE DR<br>SUITE 110<br>CHESTERFIELD 63017 |
| RNST,RICHARD,E, | R | 14377 WOODLAKE DR<br>SUITE 110<br>CHESTERFIELD 63017 |
| RNST,ROLAND,P, | R | 12327 CREEKHAVEN<br>ST LOUIS 63131 |
| ESCOFFERY,RICHARD,FRASER, | OPH | 5103 QUEENY TOWERS<br>4989 BARNES HOSPITAL PLAZA<br>ST LOUIS 63110 |
| SSLINGER,ARTHUR,T J, | OBG | 816 IDLEWILD WAY<br>SIESTA KEY<br>SARASOTA FL 33581 |
| THEREDGE,EDWARD,EZEKIEL, | GS | WASH UNIV DEPT SURG<br>ST LOUIS 63110 |
| TIENNE,ROBT,BELIZAIRE, | IM | 6000 WESTMINSTER<br>ST LOUIS 63112 |
| TO,JACKSON,KAZUO, | PD | 6651 CHIPPEWA ST<br>ST LOUIS 63109 |
| VANS,LAWRENCE,G, | ORS | 1325 S GRAND<br>ST LOUIS 63104 |
| VENS,RONALD,GENE, | R | 510 S KINGSHIGHWAY<br>ST LOUIS 63110 |
| YERMAN,EDWARD,LOUIS, | N | 1035 BELLEVUE AVE<br>ST LOUIS 63117 |
| ABIAN,LEONARD,W, | AN | 660 S EUCLID<br>ST LOUIS 63110 |
| AIR,WM,ROBT, | U | 4960 AUDUBON<br>ST LOUIS 63110 |
| AJATIN,ROMULO, | IM | 600 N UNION<br>ST LOUIS 63108 |
| ALLON,RICHARD,HENRY, | GS | 4989 BARNES HOSP PLAZA<br>ST LOUIS 63110 |
| ARBERMAN,ELLIOTT, | PD | 437 FALAISE DR<br>CREVE COFUR 63141 |
| ARRELL,JOHN,SYLVESTER, | IM | 1448 ASTOR DRIVE<br>ANN ARBOR MI 48104 |
| ARRELL,ROBT,JOS, | IM | 9060 SARANAC DR<br>ST LOUIS 63117 |
| ARZANA,FARIDA, | P | 6 WEDGEWOOD LN<br>ST LOUIS 63141 |
| FEHLMAN,BERNARD,F, | AN | 3213 CANDACE DR<br>AUGUSTA GA 30909 |
| FELIX,ROBT,H, | P | 10501 INDIAN WELLS DR<br>SUN CITY AZ 85351 |
| FELLER,HAROLD,HENRY, | GP | NORTHLAND MED BLDG STE 201<br>ST LOUIS 63136 |
| FELLHAUER,CARL,M, | ORS | 1035 BELLEVUE<br>RICHMOND HEIGHTS 63117 |
| FELTS,JAMES,A, | AN | 660 S EUCLID<br>ST LOUIS 63110 |
| FERGUSON,THOS,B, | TS | 4989 BARNES HOSP PLAZA ST 6106<br>ST LOUIS 63110 |
| FERRENDELLI,JAMES,A, | PA | 660 S EUCLID<br>ST LOUIS 63110 |
| FERRO,ANTHONY,LOPEZ, | P | 217 MNORTH HORNE<br>MESA AZ 85203 |
| FERRY,RICHARD,JOSEPH, | N | 141 MERAMEC ST<br>CLAYTON 63105 |
| FETICK,PAUL,G, | GP | 12660 LAMPLIGHTER SQUARE<br>ST LOUIS 63128 |
| FINGER,DONALD,H, | IM | 522 N NEW BALLAS RD<br>ST LOUIS 63141 |
| FINK,LE,ROY LOUIS, | GS | 11155 DUNN RD STE 206<br>ST LOUIS 63136 |
| FINN,MURRAY,E, | P | 1035 BELLEVUE STE 202<br>ST LOUIS 63117 |
| FINNEGAN,JOS,VINCENT, | IM | 1035 BELLEVUE ST<br>ST LOUIS 63117 |
| FIORDELISI,ROCCO,JOS, | GS | 700 HAVERFORD RD<br>ST LOUIS 63124 |
| FISH,VIRGIL,OTTO, | GS | 2500 TOWN & COUNTRY LANE<br>ST LOUIS 63131 |
| FISHMAN,MARVIN,ALLEN, | N | P O BOX 14871<br>ST LOUIS 63178 |
| FITCH,COY,DEAN, | IM | 1325 S GRAND BLVD<br>ST LOUIS 63104 |
| FITZGERALD,LEO,PETER T, | OBG | 7219 CORNELL AVE<br>ST LOUIS 63130 |
| FITZGERALD,WM,T, | | 3915 WATSON RD<br>ST LOUIS 63109 |
| FIVIAN,GERALD,JOS, | OPH | 2821 N BALLAS RD<br>ST LOUIS 63131 |
| FLANCE,ISRAEL,JEROME, | PUD | 4652 MARYLAND<br>ST LOUIS 63108 |
| FLANIGAN,GEO,DALTON, | OBG | 2827 LAWTON PROMENADE<br>ST LOUIS 63103 |
| FLEISHMAN,ALFRED, | IM | 2428 WOODSON RD<br>ST LOUIS 63114 |
| FLORES-VEGA,CARLOS,H, | IM | 3915 WATSON RD<br>ST LOUIS 63109 |
| FLOTTE,BERNARD,HENRY, | IM | 6 LILA LANE<br>FLORISSANT 63033 |
| FLOTTE,SYLVESTER,A, | IM | 466 RUNNYMEDE DR<br>ST LOUIS 63141 |
| FLUG,ERIC,J, | | 12166 BIG BEND BLVD<br>ST LOUIS 63122 |
| FLYNN,EDWARD,P, | IM | 9730 E WATSON RD<br>ST LOUIS 63126 |
| FLYNN,JOHN,TIMOTHY, | CO | 3211 S GRAND BLVD<br>ST LOUIS 63118 |
| FLYNN,JOS,EDWARD, | GS | 621 S NEW BALLAS<br>ST LOUIS 63141 |
| FOGARTY,WM,MARTIN, | IM | 3915 WATSON RD<br>ST LOUIS 63109 |
| FORD,LEE,T, | ORS | 4910 FOREST PARK<br>ST LOUIS 63108 |
| FORD,THOMAS,E, | OPH | 807 STADIUM<br>COLUMBIA 65201 |
| FORREST,JOHN,VINCENT, | DR | 6150 OAKLAND<br>ST LOUIS 63139 |
| FORSEN,JAMES,ALBERT, | OS | GOWER 64454 |
| FORTI,JOHN,J, | GP | 1434 CHAMBERS<br>ST LOUIS 63135 |
| FOX,ROBT,EDWARD, | IM | 6744 CLAYTON RD<br>ST LOUIS 63117 |
| FRANCISCO,DOMINIC,S, | R | 777 S NEW BALLAS RD<br>ST LOUIS 63141 |
| FRANK,ALVIN,R, | PYA | 7457 CROMWELL DR<br>ST LOUIS 63105 |
| FRANKLIN,MAX,SCHWAB, | CD | 585 COEUR DE ROYALE APT 401<br>ST LOUIS 63136 |
| FRASER,DANL,MC KENZIE, | TS | 1035 BELLEVUE AVE<br>ST LOUIS 63117 |
| FRAWLEY,THOS,F, | END | 12255 DE PAUL DR<br>SUITE 865<br>BRIDGETON 63044 |
| FREDERICK,RAYMOND,D, | GS | 55 RIDGEMOOR DR<br>CLAYTON 63105 |
| FREEDMAN,RUTH,SCHREIBER, | OPH | 10287 CLAYTON ROAD<br>ST LOUIS 63124 |
| FREEMAN,DAVID,MERRILL, | OPH | 7316 KINGSBURY<br>ST LOUIS 63105 |
| FREIMAN,SEYMOUR,MICHAEL, | OBG | 777 S NEW BALLAS RD<br>ST LOUIS 63141 |
| FREUND,SAML,JACQUES, | CRS | 8515 DELMAR<br>ST LOUIS 63124 |
| FRIEDMAN,PAUL,LAWRENCE, | AN | 7332 CORNELL<br>ST LOUIS 63130 |
| FRIEDRICH,ANTHONY,P, | EM | 12354 BOOTH BAY COURT<br>CREVE COEUR 63141 |
| FRIEDRICH,ERNST,RUDOLF, | OBG | 4911 BARNES HOSP PLAZA<br>ST LOUIS 63110 |
| FRIES,ARMAND,D, | OTO | 11 W GEYER LN<br>ST LOUIS 63131 |
| FRIES,JOHN,WM, | R | 10010 KENNERLY ROAD<br>ST LOUIS 63128 |
| FRISKEL,ARTHUR,K, | IM | 7500 DEVONSHIRE<br>ST LOUIS 63119 |
| FRUMSON,GUY,H, | ORS | 12255 DE PAUL DR<br>BRIDGETON 63044 |
| FRYER,MINOT,P, | PS | 4989 BARNES HOSPITAL PLAZA<br>ST LOUIS 63110 |
| FUJITA,MILTON,TAKASHI, | CHP | 12161 POINT OAK RD<br>ST LOUIS 63131 |
| FULEIHAN,FARID,MUFADI, | U | 621 S NEW BALLAS<br>ST LOUIS 63141 |
| FUNSCH,ROBERT,E, | ORS | 6744 CLAYTON RD<br>ST LOUIS 63117 |
| FURLA,GUS,JOHN, | GP | 57 BROADVIEW DR<br>ST LOUIS 63105 |
| FURLOW,LEONARD,T, | NS | RTE 1 BOX 1240<br>CRYSTAL RIVER FL 32629 |
| GABILONDO,JORGE,C, | IM | 13555 KIT LN<br>APT 127<br>DALLAS TX 75240 |
| GAFFNEY,CALDWELL,JAMES, | GS | 4959 NORTHLAND PLACE<br>ST LOUIS 63131 |
| GAFNEY,GEO,THOS, | GS | ST AGNES HOME<br>MANCHESTER & WOODLAWN RD<br>ST LOUIS 63122 |
| GAGLIARDO,JOSEPH, | P | 141 N MERAMEC RM 303<br>CLAYTON 63105 |
| GALAKATOS,ANDREW,E, | OBG | 777 S NEW BALLAS ROAD<br>ST LOUIS 63141 |
| GALAN,ALEJANDRO,ALFREDO, | GS | 525 COUCH<br>ST LOUIS 63122 |
| GALL,ALAN,M, | OTO | 4989 BARNES HOSPITAL PLAZA<br>ST LOUIS 63110 |
| GANDLMAYR,JACOB,MATHIAS, | GP | 1040 N MASON RD<br>ST LOUIS 63141 |
| GANSLOSER,WILBERT,MAX, | P | 950 FRANICS PL<br>CLAYTON 63105 |
| GANTNER,GEO,E, | FOP | 1325 S GRAND BLVD<br>ST LOUIS 63104 |

GANTZ,JOHN,AUGUST, NM
10 MUIRFIELD LANE
ST LOUIS 63141
GARAS,GAMAL, AN
2109 CEDAR ROYAL DR
ST LOUIS 63131
GARCIA-FERRER,EDUARDO,A, P
1420 GRATTAN
ST LOUIS 63104
GARFINKEL,BERNARD,T, IM
522 N NEW BALLAS RD
ST LOUIS 63141
GARRIGA,FRANCISCO,JAVIER, IM
11115 NEW HALLS FERRY RD
FLORISSANT 63033
GAVINI,RAJENDRA,RAO, GS
2636 S GRAND
ST LOUIS 63118
GEARHART,DAVID,LE MOINE, OBG
456 NO NEW BALLAS RD
ST LOUIS 63141
GEDNEY,WM,BURTON, IM
806 MERAMEC STATION RD
VALLEY PARK 63088
GEIB,PHILIP,J, GS
1321 WHISPERING PINES DR
ST LOUIS 63141
GEISE,AUGUST,WM, NS
5505 DELMAR
ST LOUIS 63112
GEISSE,GUILLERMO, R
DEPT OF RADIOLOGY
6150 OAKLAND
ST LOUIS 63139
GENTSCH,KENNETH,WALTER, IM
114 N TAYLOR
ST LOUIS 63108
GERMUTH,FREDERICK,G, PTH
615 S NEW BALLAS RD
ST LOUIS 63141
GEROWIN,LANCE, GS
9408 W MILTON
ST LOUIS 63114
GERST,ALOYSIUS,CHAS, PD
11115 NEW HALLS FERRY RD
FLORISSANT 63033
GILDEA,MARGARET,C L, P
96 GARDINER RD
WOODS HOLE MA 02543
GILDEN,JEROME,J, ORS
4919 FOREST PARK AVE
ST LOUIS 63108
GILPIN,DORIS,C WEISER, CHP
7452 AMHERST AVE
ST LOUIS 63130
GILULA,LOUIS,ARNOLD, OR
250 DIELMAN RD
ST LOUIS 63124
GINSBURG,JORDAN,H, ORS
4960 AUDUBON AVE
ST LOUIS 63110
GIRAPARNONT,BANG-ORN, OBG
CHRISTIAN HOSP NORTHWEST
1225 GRAHAM RD
FLORISSANT 63031
GLADNEY,JOHN,HERSEL, OTO
100 N EUCLID AVE-STE 700
ST LOUIS 63108
GLINES,MICHAEL,H, PD
12 MERAMEC HGTS SHOPPING CTR
ARNOLD 63010
GLUCK,OSCAR,S, IM
10 BIRNAWOODS
ST LOUIS 63132
GNADE,ALBERT,JOS, GS
3606 GRAVOIS AVE
ST LOUIS 63116
GODINEZ,MARYE,HILDA D O, AN
BARNES HOSPITAL PLAZA
ST LOUIS 63110
GOEBEL,JOAN,MARY, AN
5128 JAMIESON
ST LOUIS 63119
GOELL,ROBT,S, OBG
100 N EUCLID
ST LOUIS 63108
GOLD,JONATHAN,ALAN, NS
12255 DE PAUL DRIVE
SUITE B30
BRIDGETON 63044
GOLDFARB,ALVIN, GS
212 RONDELAY COURT
ST LOUIS 63141
GOLDGABER,ALBERTO, IM
1034 S BRENTWOOD
ST LOUIS 63117
GOLDMAN,ARNOLD,MILTON, IM
522 N NEW BALLAS RD
ST LOUIS 63141
GOLDMAN,MELVIN,LEONARD, IM
8631 DELMAR
ST LOUIS 63124
GOLDRING,DAVID, PDC
500 S KINGSHIGHWAY
ST LOUIS 63110
GOLDRING,SIDNEY, NS
660 S EUCLID
ST LOUIS 63110
GOLDSTEIN,BENJAMIN, IM
2428 WOODSON RD
ST LOUIS 63114
GOLDSTEIN,MARCY,ALLEN, PS
P O BOX 1363
ROSS CA 94957
GORDON,JAMES,M, OPH
11155 DUNN RD
ST LOUIS 63136
GORLA,WAYNE,OLIVER, IM
27 HARNEYWOLD
ST LOUIS 63136
GOWLER,DOUGLAS,ROBT, CHP
3394 MCKELVEY RD
BRIDGETON 63044
GRAFF,RALPH,JOS, OS
P O BOX 14109
ST LOUIS 63177
GRANETO,JOS,ANTHONY, GP
5521 S BROADWAY
ST LOUIS 63111
GRANT,JOHN,MOSBY, IM
114 N TAYLOR AVE
ST LOUIS 63108
GRANT,NEVILLE, IM
114 N TAYLOR
ST LOUIS 63108
GRANT,SAML,BECKER, OS
114 N TAYLOR AVE
ST LOUIS 63108
GRAUL,WALTER,P, ORS
12255 DE PAUL DR
BRIDGETON 63044
GREBEL,CLEMENT,BOVARD, IM
16 HAMPTON VILLAGE
ST LOUIS 63109
GREEN,MORTON,ROBT, OPH
301 W LINCOLN
BELLEVILLE IL 62220
GREEN,WM,RADFORD, FP
7200 MANCHESTER
ST LOUIS 63143
GREGORY,JOHN,GEARY, U
1325 S GRAND
ST LOUIS 63104
GRESICK,ROBT,JOS, PTH
11 COACH-N-FOUR
ST LOUIS 63131
GRIEGE,CHAS,WM, CD
493 ST FRANCOIS
FLORISSANT 63031
GRIGGS,JAMES,YOUNG, GS
7620 CARONDELET
ST LOUIS 63105
GRINDON,JOS,B, D
1035 BELLEVUE AVE
RICHMOND HEIGHTS 63117
GRUBB,ROBT,LEE, NS
BARNES HOSP NEUROSURGERY DEPT
ST LOUIS 63110
GUILLEN,DIOSDADO,T, PD
1717 BIDDLE ST
ST LOUIS 63106
GUKHOOL,PREMLALL, OR
510 S KINGSHIGHWAY
ST LOUIS 63110
GULICK,C,RICHARD, OBG
1034 S BRENTWOOD
ST LOUIS 63117
GULICK,CHARLES,R, OBG
1034 S BRENTWOOD BLVD
ST LOUIS 63117
GUMMELS,BELMONT,B, GP
718 FLORENCE AVE
ST LOUIS 63119
GUNAWARDHANA,HEMACHANDRA,P, P
2100 MADISON
GRANITE CITY IL 62040
GUNN,ROBERT,W, OPH
2601 NORTH WHITTIER
ST LOUIS 63113
GUNN,WALTER,THOS, GP
4617 DAHILA AVE
ST LOUIS 63116
GUZE,SAML,BARRY, P
4940 AUDUBON AVE
ST LOUIS 63110
HABERT,EDWARD,R, R
10010 KENNERLY
ST LOUIS 63128
HADDOCK,JAMES,NELSON, P
777 S NEW BALLAS RD
ST LOUIS 63141
HAFFNER,HEINZ,EMIL, GS
4963 BARNES HOSP PLAZA
ST LOUIS 63110
HAGAN,DANL,J, R
621 S NEW BALLAS RD
ST LOUIS 63141
HAGEBUSCH,OMER,ERNST, PTH
15201 OLIVE ST RD APT 370
CHESTERFIELD 63017
HALFORD,RICHARD, PS
1040 N MASON RD STE 109
ST LOUIS 63141
HALL,LEE,AKER, OBG
35 N CENTRAL AVE
CLAYTON 63105
HALL,PRESTON,CALDWELL, GP
39 WOODCREST DR
ST LOUIS 63124
HALL,ROBT,ANTOINE, FP
43 WASHINGTON TR
ST LOUIS 63112
HALL,WM,K, O
P O BOX 661
ST CHARLES 63301
HALLEY,R,HALIKIOPOULOS, U
11155 DUNN RD STE 214
ST LOUIS 63136
HALLORAN,MARK,JOS, IM
621 S NEW BALLAS RD STE 419
ST LOUIS 63141
HALVERSON,JOHN,DAVID, GS
4960 AUDUBON
ST LOUIS 63110
HAMILTON,CALDWELL,K, PD
11745 OLIVE ST RD
CREVE COEUR 63141
HAMILTON,EUGENE,GREEN, OBG
BELLEUVE BLDG-1035 BELLEVUE
AURORA 65605
HAMILTON,JOHN,A, OBG
1524 RENDERER DRIVE
ST LOUIS 63110
HAMILTON,THOMAS,R, ID
2205 E 5TH ST
DULUTH MN 55812
HAMILTON,WILLIAM,PATRICK, CD
615 S NEW BALLAS ROAD
ST LOUIS 63141
HAMMOND,DAVID,TODD, IM
114 N TAYLOR AVENUE
ST LOUIS 63108
HAMPTON,HENRY,EUGENE, GP
2345 PINE ST
ST LOUIS 63103
HAMPTON,STANLEY,F, A
6744 CLAYTON ROAD
ST LOUIS 63117
HANAWAY,JOS, N
BARNES HOSPITAL PLAZA
ST LOUIS 63110
HANES,LILY,A FARLEY P, TR
615 SOUTH NEW BALLAS ROAD
ST LOUIS 63141
HANKIN,NORMAN,MERLIN, PD
4233 SULPHUR AVE
ST LOUIS 63109
HANSEL,FRENCH,KELLER, A
515 TIMBERWYCK
ST LOUIS 63131
HANSER,THEODORE,H,
3555 SUNSET OFFICE DR
ST LOUIS 63127
HARDY,DAVID,ALMSTEDT, U
911 S BRENTWOOD BLVD
ST LOUIS 63105
HARELL,ALEX, ORS
B MEDIC CTR 1040 MASON RD N
ST LOUIS 63141
HARFORD,CARL,G, OS
WASH U SCH MED-INT MED-BX 8051
ST LOUIS 63110
HARKINS,WM,BLAKE, OTO
7 KINGSBURY PL
ST LOUIS 63112
HARPER,FLEMING,BATES, GS
4989 BARNES HOSP PLAZA
ST LOUIS 63110
HARRISON,LEE,BULLEN, IM
44 RIDGEMOOR DR
CLAYTON 63105
HARRISON,RICHARD,L, P
9705 WATSON RD
CRESTWOOD 63126
HART,WILLIAM, OPH
660 SOUTH EUCLID
ST LOUIS 63110
HART,WILLIAM,G,
7559 FLETA
ST LOUIS 63123
HARTMAN,PAUL,TUPPER, P
1034 S BRENTWOOD BLVD
ST LOUIS 63117
HARTNETT,THOS,DALEY, P
11 S MERAMEC
ST LOUIS 63105
HARTSTEIN,JACK, OPH
8631 DELMAR BLVD
ST LOUIS 63124
HARTWIG,JOHN,ADAM, GP
12541 POSTGROVE DR
ST LOUIS 63141
HATFALVI,BELA,ISTVAN, AN
15 MIDDLESEX DR
ST LOUIS 63144
HAUN,RONALD,L, PD
715 1ST AVE
EVANSVILLE IN 47710
HAWK,BRAY,ORA, GS
16 HAMPTON VILLAGE
ST LOUIS 63109
HAWKER,WM,DAVIS, OBG
77 WILLMORE RD
ST LOUIS 63109

HAWKINS,GEO,L, NS
5505 DELMAR AVE
ST LOUIS 63112
HAYEK,WESLEY,E, GS
11115 NEW HALLS FERRY RD
FLORISSANT 63033
HAYNES,JAMES,WM, PTH
135 W ADAMS
KIRKWOOD 63122
HAZAN,JOSEPH, OBG
2426 WOODSON
ST LOUIS 63114
HEADRICK,JOHN,ANDERSON, IM
11133 DUNN RD
ST LOUIS 63136
HEGDE,KORGI,V, IM
3915 WATSON RD
ST LOUIS 63109
HEINS,JAMES,NEIL, IM
631 E MONROE
ST LOUIS 63122
HELLWEG,RAYMOND,W, PO
3220 PARKER RD
FLORISSANT 63033
HENARES-LEVY,LOURDES, CHP
369 NORTH TAYLOR
ST LOUIS 63108
HENDERLITE,JOHN,WARREN, IM
3136 ALPEN ROSE APT A
ST LOUIS 63125
HENSCHEL,EUGENE,VICTOR, IM
55 BROADVIEW DR
ST LOUIS 63105
HER,KYU,SOOK, PO
624 HAVERFORD RD
ST LOUIS 63124
HERMAN,MORRIS, ABS
3555 SUNSET OFFICE DR
ST LOUIS 63127
HERNANDEZ,SALVADOR,R, ORS
6500 CHIPPEWA AVE
ST LOUIS 63109
HERRON,ROBERT,T, IM
1325 S GRAND
ST LOUIS 63104
HERTEL,RONALD,C, ORS
1034 S BRENTWOOD BLVD
SUITE 650
RICHMOND HEIGHTS 63117
ESKER,ALBERT,ERWIN, R
2821 N BALLAS RD STE C-65
ST LOUIS 63131
EUSLER,ANTON,FREDERICK, P
317 NORTHLAND MED BLDG
ST LOUIS 63136
EUTEL,LEE,BEN, OM
7200 MANCHESTER
ST LOUIS 63143
IATT,BARRY,ALAN, P
111 SOUTH MERAMEC AVE
ST LOUIS 63105
ICKEY,JAMES,LAMBERT, OBG
621 S NEW BALLAS RD
ST LOUIS 63141
ICKS,ROBT,STANLEY, P
777 S NEW BALLAS RD STE 234E
ST LOUIS 63141
IGGINS,PHILIP,CORNELIUS, OBG
1 CLAYCHESTER
ST LOUIS 63131
IGHTOWER,HARRY,GRAY, P
4524 FOREST PARK
ST LOUIS 63106
ILBERT,PAUL,HERBERT, GP
2905 CHEROKEE ST
ST LOUIS 63116
ILDRETH,HOWARD,ROMMEL, OPH
15022 CLAYMOOR CT
CHESTERFIELD 63017
ILGERS,THOS,WM, OBG
CREIGTON UNIV
DEPT OF OB-GYN
OMAHA NE 68108
ILL,XA,CADENE AVERYLLIS, GP
4067 DR MARTIN LUTHER KING DR
ST LOUIS 63113
ILLMAN,RICHARD,EPHRAIM, PD
500 S KINGSHIGHWAY
ST LOUIS 63110
RONIMUS,JOHN,EDWARD, D
6651 CHIPPEWA ST STE 207
ST LOUIS 63109
IRSCH,JOHN,D, GS
216 S KINGSHIGHWAY
ST LOUIS 63110
EHN,JOHN,P, GS
12255 DE PAUL DR SUITE 730
BRIDGETON 63044
FFMANN,AUGUSTIN,O, IM
6222 DELOR
ST LOUIS 63109
FFMANN,RONALD,E, ORS
12255 DE PAUL DR
BRIDGETON 63044

HOFLING,CHAS,K, P
1221 S GRAND BLVD
ST LOUIS 63104
HOFSTATTER,LEOPOLD, P
766 GLEN VISTA DR
ST LOUIS 63122
HOGAN,CORNELIUS,EMMETT, IM
3654 S GRAND BLVD
ST LOUIS 63118
HOGAN,JOHN,ROBT, IM
67 BERRY PARK RD
ST LOUIS 63122
HOGAN,PATRICK,A, N
1034 S BRENTWOOD
ST LOUIS 63117
HOGAN,PATRICK,COLM, OBG
10004 KENNERLY RD
ST LOUIS 63128
HOLBROOK,CHAS,K, OM
9901 DIAMOND DR
ST LOUIS 63137
HOLEMON,R,EUGENE, P
2821 N BALLAS RD
ST LOUIS 63131
HOLLIDAY,CRAIG,
5210 A SALINAS VALLEY DR
ST LOUIS 63126
HOLLO,VENCEL,WM, GS
911 SOUTH BRENTWOOD
ST LOUIS 63105
HOLLOCHER,RICHARD,J, ORS
777 S NEW BALLAS RD
CREVE COEUR 63141
HOLSCHER,EDWARD,CHARLES, ORS
234 W JACKSON ROAD
WEBSTER GROVES 63119
HOLT,EARL,P, ORS
5505 DELMAR
ST LOUIS 63112
HOLT,WILLIAM,J, ORS
7137 CAMBRIDGE
ST LOUIS 63130
HOLT,WM,EDWARD, PYA
4524 FOREST PARK BLVD
ST LOUIS 63108
HOLTMANN,BARBEL, PS
4960 AUDUBON
ST LOUIS 63110
HOLTZ,ALAN,S, GS
12166 BIG BEND RD
KIRKWOOD 63122
HOOVER,BERNARD,LAURENCE, IM
3915 WATSON RD
ST LOUIS 63109
HORENSTEIN,SIMON, N
1221 S GRAND BLVD DEPT NEURO
ST LOUIS 63104
HORNER,JOHN,LINSCOTT, IM
615 GARLAND PL
ST LOUIS 63122
HORWITZ,IRWIN,B, ORS
4919 FOREST PARK AVE
ST LOUIS 63108
HOUSTON,VINCENT,T, GS
7820 CARONDELET AVE
ST LOUIS 63105
HOUTTUIN,ERIK, U
1325 S GRAND BLVD
DEPT SURG
ST LOUIS 63104
HOVADHANAKUL,PRAPHAT, OBG
UNIV OF S FL SCH OF MED BOX 16
TAMPA FL 33612
HSU,CHING,FA, IM
3759 SOUTH JEFFERSON AVE
ST LOUIS 63116
HUANG,GEO, ORS
640 LA CASA VIA
WALNUT CREEK CA 94596
HUANG,SHIH, PO
660 S EUCLID
ST LOUIS 63110
HUCK,RICHARD,FELIX, IM
2821 N BALLAS
ST LOUIS 63131
HUGGINS,ALBERT,MATHEW, IM
6651 CHIPPEWA ST
ST LOUIS 63109
HUGHES,CHAS,PAUL, N
WASHINGTON UNIV DEPT-NEUR
ST LOUIS 63130
HULBERT,BERNARD, IM
8112 DELMAR BLVD
ST LOUIS 63130
HUMMEL,ANTON,J, OPH
5203 CHIPPEWA ST
ST LOUIS 63109
HUMMEL,WM,CARL, R
1924 MUIR WOODS
ST LOUIS 63131
HUNLETH,FRANK,EUGENE, OBG
6744 CLAYTON RD & BIG BEND
ST LOUIS 63117
HUTCHINSON,JAMES,H, IM
114 N TAYLOR AVE
ST LOUIS 63108

HUTCHINSON,WILLIAM, R
2821 N BALLAS RD
ST LOUIS 63131
HUTTO,HERMAN, OBG
4605 LINDELL
APT 402
ST LOUIS 63106
HYMAN,ANNA, P
40 N KINGSHIGHWAY
APT K-9
ST LOUIS 63108
IKEDA,SHIGEMASA, AN
1325 S GRAND
ST LOUIS 63104
INMAN,MAX,MURRAY, IM
3915 WATSON RD
ST LOUIS 63109
IRVIN,WM,MARTIN, P
1035 BELLEVUE STE 202
ST LOUIS 63117
ISHIDA,YASUO, OBG
6744 CLAYTON RD
ST LOUIS 63117
ISHIZAWAR,YORCKAY,C, GS
2601 N WHITTIER
ST LOUIS 63113
ITTNER,GEO,W, IM
5505 DELMAR SUITE 310
ST LOUIS 63112
IWANE,AKIRA, AN
4989 BARNES HOSP PL
ST LOUIS 63110
JABLONSKI,RAYMOND,CHAS, R
3RD & 1ST CAPITOL
ST CHARLES 63301
JACOB,KARL,ADOLPH, NS
621 S NEW BALLAS RD
ST LOUIS 63141
JACOBS,CHAS,C, OTO
43 MUIRFIELD LN
ST LOUIS 63141
JACOBS,JOHN,R, OTO
980 CHESTNUT RIDGE RD
MANCHESTER 63011
JAFFE,BERNARD,M, GS
4960 AUDUBON
ST LOUIS 63110
JANNEY,JAMES,G, IM
950 FRANCIS PL
CLAYTON 63105
JAROSEWYCZ,DEMETRIUS, P
VET ADMIN HOSP JEFFERSON BARR
ST LOUIS 63125
JAUDON,JOS,CABELL, PO
55 S GORE
ST LOUIS 63119
JEAN,J,TED, IM
4989 BARNES HOSP PLAZA
ST LOUIS 63110
JEDD,JAMES,JERRY, AN
621 S NEW BALLAS
ST LOUIS 63141
JENNY,ARTHUR,B,
344 JEFFERSON RD
ST LOUIS 63119
JENSEN,JOSHUA,ERNEST, GS
11155 DUNN RD STE 208
ST LOUIS 63136
JOFFE,WM,STEVEN, OPH
211 N MERAMEC AVE
CLAYTON 63105
JOFTUS,MORRIS, RHU
4652 MARYLAND
ST LOUIS 63108
JOHNSON,CHAS,JULIUS, PS
1035 BELLEVUE
ST LOUIS 63117
JOHNSON,MARK,F, OPH
660 S EUCLID
ST LOUIS 63110
JOHNSON,MITCHELL,O, GS
40 N FLORISSANT RD
FERGUSON 63135
JOHNSTON,GLEN,PAUL, OPH
QUEENY TOWER BLDG STE 5103
ST LOUIS 63110
JOHNSTONE,JOHN,T, IM
206 W ARGONNE
KIRKWOOD 63122
JONES,ANDREW,BLUCHER, N
RT 1
SODDY TN 37379
JONES,AUGUSTIN,
100 N EUCLID
ST LOUIS 63108
JONES,GREY, OBG
SAN PEDRO MONTES DE OCA A 346
SAN JOSE COSTA RICA 00100
JONES,JAMES,DAVID, AN
BARNES HOSPITAL PLAZA
ST LOUIS 63110
JONES,JAMES,HENNESSY, OPH
1035 BELLEVUE AVE
ST LOUIS 63117
JONES,OTEY,SHERMAN, GP
3616 S BROADWAY
ST LOUIS 63118

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| JONES,RICHARD,ARTHUR,<br>777 S NEW BALLAS RD STE 223 E<br>ST LOUIS 63141 | IM |
| JORDAN,WALTER,ROBT,<br>112 REANIE DR<br>CAMERON TX 76520 | GP |
| JOSEPH,HAROLD,J,<br>828 CELLA RD<br>ST LOUIS 63124 | IM |
| JOSLYN,HAROLD,LEES,<br>634 N GRAND BLVD<br>ST LOUIS 63103 | GE |
| JOST,CHAS,AURELIUS,<br>11115 NEW HALLS FERRY RD<br>FLORISSANT 63033 | GP |
| JUDD,DONALD,RICHARD,<br>950 FRANCIS PL<br>ST LOUIS 63105 | TS |
| JUDY,JOS,DAVID,<br>11115 NEW HALLS FERRY RD<br>FLORISSANT 63033 | IM |
| JUERGENS,WM,GEO,<br>1034 S BRENTWOOD BLVD<br>ST LOUIS 63117 | IM |
| JULIEN,RENE,<br>7401 STATE<br>EAST ST LOUIS IL 62203 | GS |
| KAIRUZ,BARTOLOME,C,<br>10004 KENNERLY RD<br>ST LOUIS 63128 | GP |
| KAISER,GEO,CHAS,<br>1325 S GRAND BLVD<br>ST LOUIS 63104 | TS |
| KAMAKAS,NICHOLAS,C,<br>1245 GRAHAM RD<br>FLORISSANT 63031 | PD |
| KAMENETZKY,STEPHEN,ALLEN,<br>10945 PEM RD<br>ST LOUIS 63141 | OPH |
| KAMINSKI,DONALD,LEON,<br>1325 S GRAND BLVD<br>ST LOUIS 63104 | ABS |
| KAMINSKY,WATSON,WALTER,<br>ST MARY'S HEALTH CENTER<br>6420 CLAYTON RD<br>ST LOUIS 63117 | GS |
| KANE,CLYDE,ERNEST,<br>6046 CLEMENS<br>ST LOUIS 63112 | GP |
| KANG,JUAN,<br>ALLEN MEDICAL LABORATORIES<br>TOWN & COUNTRY MEDICAL BLDG<br>2621 NORTH BALLAS RD<br>ST LOUIS 63131 | PTH |
| KAO,MING-SHIAN,<br>4911 BARNES HOSP PLAZA<br>ST LOUIS 63110 | OBG |
| KAPLAN,ALEX,H,<br>4524 FOREST PARK BLVD<br>ST LOUIS 63108 | PYA |
| KAPPESSER,NETAJEAN,GRACE,<br>55 FAIR OAKS DR<br>ST LOUIS 63124 | GP |
| KAPPESSER,ROLAND,C,<br>55 FAIR OAKS<br>ST LOUIS 63124 | AN |
| KARANDJEFF,APOSTLE,D,<br>1035 BELLEVUE AVE RM 313<br>ST LOUIS 63117 | OTO |
| KARIS,ROBT,GEO,<br>601 S BRENTWOOD<br>ST LOUIS 63105 | N |
| KARL,MICHAEL,MEYER,<br>4652 MARYLAND AVE<br>ST LOUIS 63108 | IM |
| KASKIE,CLIFFORD,R,<br>621 S NEW BALLAS RD<br>ST LOUIS 63141 | OBG |
| KASS,MICHAEL,ALLEN,<br>660 S EUCLID<br>ST LOUIS 63110 | OPH |
| KATSANTONIS,GEORGE,<br>1325 S GRAND<br>ST LOUIS 63104 | OTO |
| KAUFMAN,KENNETH,ROLAND,<br>PITTSBURG ADV RESEARCH<br>DEPT OF PSYCHIATRY<br>PITTSBURGH PA 15261 | P |
| KAUFMAN,ROBT,LIONEL,<br>100 N EUCLID STE 806<br>ST LOUIS 63108 | OS |
| KAYES,JACK,<br>211 N MERAMEC<br>ST LOUIS 63105 | OPH |
| KAZA,RAMARAO,<br>2601 N WHITTIER ST<br>ST LOUIS 63113 | U |
| KEATING,JAMES,PETER,<br>500 S KINGSHIGHWAY<br>ST LOUIS 63110 | GE |
| KEFFLER,KARL,LEOPOLD,<br>7306 WISE AVE<br>ST LOUIS 63117 | GP |
| KELLER,DAVID,WALTER,<br>4911 BARNES HOSP PLAZA<br>ST LOUIS 63110 | OBG |
| KELLER,LOUIS,<br>950 FRANCIS PL RM 305<br>CLAYTON 63105 | D |
| KELLER,MAURICE,JOS,<br>9049 CLAYTON RD<br>ST LOUIS 63117 | PD |
| KELLETT,JOHN,GRAMANN,<br>243 KENORA CT<br>WEBSTER GROVES 63119 | GP |
| KELLY,JOHN,JOS,<br>114 N TAYLOR<br>ST LOUIS 63108 | IM |
| KELLY,R,EMMET,<br>819 LOCUST ST<br>ST LOUIS 63101 | OM |
| KELLY,WILLIAM,A,<br>1221 S GRAND<br>ST LOUIS 63104 | P |
| KELTNER,RAYMOND,MARION,<br>1325 S GRAND<br>ST LOUIS 63104 | GS |
| KENDIG,JOHN,HOWARD,<br>5505 DELMAR BLVD-RM 509<br>ST LOUIS 63112 | NS |
| KERR,DAVID,NAFE,<br>MISSOURI PACIFIC HOSP<br>ST LOUIS 63104 | IM |
| KESSEL,JAMES,W,<br>BARNES HOSP<br>BARNES HOSP PLAZA<br>ST LOUIS 63110 | OBG |
| KEYES,E,LAWRENCE,<br>900 S HANLEY RD<br>ST LOUIS 63105 | GS |
| KHAN,ABDUL,RAOOF,<br>9730 E WATSON RD<br>ST LOUIS 63126 | PO |
| KHODADOUST,KAVOUS,<br>1606 GRATTAN<br>ST LOUIS 63104 | PTH |
| KIENZLE,EDWARD,<br>4075 S GRAND<br>ST LOUIS 63118 | FP |
| KILLEBREW,DAVID,S,<br>BARNES HOSP PLAZA<br>ST LOUIS 63110 | OTO |
| KILO,CHAS,<br>777 S NEW BALLAS RD<br>ST LOUIS 63141 | IM |
| KIM,CHUNG,KI,<br>451 HAMMERSMITH<br>ST LOUIS 63141 | OBG |
| KIM,JONG,KU,<br>141 N MERAMEC AVE<br>ST LOUIS 63105 | GS |
| KIM,STANLEY,W,<br>777 S NEW BALLAS<br>ST LOUIS 63141 | R |
| KIM,WON,M,<br>1325 S GRAND BLVD<br>ST LOUIS 63104 | AN |
| KIM,YOUNG,<br>601 S BRENTWOOD BLVD<br>ST LOUIS 63105 | PTH |
| KING,FRANCIS,C,<br>11040 MANCHESTER RD<br>ST LOUIS 63122 | GP |
| KING,JAMES,PATRICK,<br>4211 BAYLESS RD<br>AFFTON 63123 | PO |
| KING,JOHN,VINCENT,<br>1207 FOXVIEW TERR<br>MANCHESTER 63011 | IM |
| KING,JOHN,VINCENT,<br>615 S NEW BALLAS RD<br>ST LOUIS 63131 | FP |
| KING,LARRY,P,<br>6420 CLAYTON<br>ST LOUIS 63117 | IM |
| KING,MORRIS,K,<br>660 S EUCLID<br>ST LOUIS 63110 | IM |
| KINSELLA,EDWARD,DOWNEY,<br>1035 BELLEVUE<br>RICHMOND HEIGHTS 63117 | GE |
| KINSELLA,PETER,W,<br>1035 BELLEVUE<br>ST LOUIS 63117 | IM |
| KINSELLA,RALPH,A,<br>6305 WESTMINSTER PL<br>ST LOUIS 63130 | IM |
| KIRSTEIN,MELVIN,B,<br>4910 FOREST PARK BLVD RM 320<br>ST LOUIS 63108 | IM |
| KISSANE,JOHN,M,<br>WASHINGTON U SCH MED<br>ST LOUIS 63110 | PTH |
| KISTLER,WALTER,D,<br>SUITE 113 MED W BLDG<br>950 FRANCIS PLACE<br>CLAYTON 63105 | CD |
| KISTNER,WM,F,<br>621 S NEW BALLAS RD<br>ST LOUIS 63141 | PUO |
| KLEIN,ADELBERT,H,<br>34 N RIDGEWOOD AVE<br>ARCADIA MI 49613 | GP |
| KLEIN,ARNOLD,GEO,<br>2632 S KINGSHIGHWAY BLVD<br>ST LOUIS 63139 | GP |
| KLEIN,SAUL,JOSHUA,<br>456 N NEW BALLAS RD STE 348<br>ST LOUIS 63141 | U |
| KLENK,CHAS,LEONARD,<br>5927 SUSON PL<br>ST LOUIS 63139 | PTH |
| KLIPPEL,BERNHARDT,WM,<br>6651 CHIPPEWA<br>ST LOUIS 63109 | GS |
| KLOECKER,RICHARD,JOS,<br>12255 DEPAUL SUITE 160<br>BRIDGETON 63044 | GS |
| KLOECKER,ROBT,PIERCE,<br>9616 LACKLAND RD<br>ST LOUIS 63114 | OBG |
| KLUZAK,THOMAS,R,<br>615 S NEW BALLAS<br>ST LOUIS 63141 | OBG |
| KNEAL,ELLSWORTH,<br>725 S SKINKER BLVD<br>ST LOUIS 63105 | PO |
| KNIGHT,WM,ALLEN,<br>1035 BELLEVUE<br>ST LOUIS 63117 | GE |
| KNOPF,HARRY,LOUIS SAFIR,<br>211 N MERAMEC ST<br>CLAYTON 63105 | OPH |
| KNOTTS,DONALD,R,<br>18232 JUDY ST<br>CASTRO VALLEY CA 94546 | IM |
| KNOWLES,ROBT,RAYMOND,<br>1034 SOUTH BRENTWOOD BLVD<br>ST LOUIS 63117 | P |
| KNOWLTON,NORMAN,P,<br>14 OAKLEIGH LN<br>ST LOUIS 63124 | IM |
| KOONER,IRA,JOE,<br>456 N NEW BALLAS RD<br>ST LOUIS 63141 | CRS |
| KOEHLER,GEO,ALVIN,<br>777 S NEW BALLAS RD<br>ST LOUIS 63141 | IM |
| KOEHLER,ROBERT,E,<br>510 S KINGSHIGHWAY<br>ST LOUIS 63110 | OR |
| KOENIG,MARVIN,IRWIN,<br>11115 NEW HALLS FERRY RD<br>FLORISSANT 63033 | OPH |
| KOHLER,LOUIS,HIRSH,<br>100 N EUCLID AVE<br>ST LOUIS 63108 | P |
| KOLKER,ALLAN,ERWIN,<br>660 S EUCLID AVE<br>ST LOUIS 63110 | OPH |
| KOLODNER,ROBERT,<br>4940 AUDUBON AVE<br>ST LOUIS 63110 | P |
| KOLODNY,ROBT,CHAS,<br>4910 FOREST PARK BLVD<br>ST LOUIS 63106 | ENO |
| KOPMAN,ERCUMENT,AHMET,<br>BARNES HOSP<br>ST LOUIS 63110 | AN |
| KOPP,LEONARD,JOS,<br>360 LADUEMONT DR<br>ST LOUIS 63141 | GP |
| KORN,ROBT,L,<br>456 N NEW BALLAS<br>ST LOUIS 63141 | PD |
| KOTNER,LAWRENCE,MELVIN,<br>10356 CHIMNEY ROCK<br>ST LOUIS 63141 | IM |
| KOVAC,S,ROBT,<br>777 S NEW BALLAS RD<br>ST LOUIS 63141 | OBG |
| KOWERT,EDWARD,HARRY,<br>100 N EUCLID ST<br>ST LOUIS 63108 | P |
| KRAEGER,RUSSELL,R,<br>950 FRANCIS PL<br>ST LOUIS 63105 | TS |
| KRAETSCH,ROBERT,E,<br>1034 S BRENTWOOD<br>ST LOUIS 63117 | HEM |
| KRAIN,SAMUEL,<br>141 NORTH MERAMEC<br>ST LOUIS 63105 | R |
| KRANER,JUSTIN,F,<br>8515 DELMAR<br>ST LOUIS 63124 | OBG |
| KRAUS,FREDERICK,THIER,<br>ST JOHNS MERCY MED CTR-PATH<br>ST LOUIS 63141 | PTH |
| KRAUSE,GEO,LYNN,<br>9740 LITZSINGER RD<br>ST LOUIS 63124 | GS |
| KRETCHMAR,ALAN,P,<br>1325 S GRAND BLVD<br>ST LOUIS 63104 | |
| KROEGER,GEO,BALDWIN,<br>621 S NEW BALLAS RD<br>ST LOUIS 63141 | OTO |
| KROJANKER,ROLF,J,<br>6651 CHIPPEWA<br>ST LOUIS 63109 | F |

KROMER,CHAS,JOS, IM
9IDI APPOMATTOX CT
ST LOUIS 63I23
KRONEMER,NORTON,STANLEY, PD
1266D LAMPLIGHTER SQUARE
ST LOUIS 63I28
KRUPIN,BARBARA,ARNOLD, AN
JEWISH HOSP OF ST LOUIS
2I6 S KINGSHIGHWAY
ST LOUIS 63110
KRUPIN,THEODORE, OPH
66D S EUCLID
ST LOUIS 63I1D
KUCZER,ARNOLDD, OTO
451I FOREST PARK
ST LOUIS 6310B
KUEBRICH,THOS,C, GP
I11 CHURCH ST
FERGUSON 63I35
KUHLMAN,RALPH,FREDRICK, IM
ID34 S BRENTWOOD BLVD
ST LOUIS 63I17
KUHLMAN,ROBERT,E, ORS
4989 BARNES HOSP PLAZA
ST LOUIS 63I10
KUHN,NOBUKO,OBAYASHI, IM
6951 DELMAR BLVD
ST LOUIS 63I30
KULAK,GARY, P
62I S NEW BALLAS
ST LOUIS 6314I
KULKAMTHORN,SIRIPORN, PM
2464 COUNTRY RUN C
MARYLAND HEIGHTS 63043
KULKAMTHORN,SRIPATT, GS
1001D KENNERLY RD
ST LOUIS 63I2B
KUNZ,HAROLD,GEO, R
10D N EUCLID
ST LOUIS 6310B
KUTRYB,WALTER,J, IM
I1II5 NEW HALLS FERRY RD
FLORISSANT 63033
L'ECUYER,JEROME,LYNN, PD
9313 MANCHESTER RD
ST LOUIS 63II9
LA DRIERE,RAYMOND,JOS, PD
450 CHESTERFIELD CENTER
CHESTERFIELD 63D17
LA FERRIERE,KEITH, OTU
517 S EUCLID
ST LOUIS 63110
LACY,PAUL,ESTON, PTH
WASHINGTON U SCH MED
ST LOUIS 631ID
LADD,CHAS,B, GP
150I LOCUST
ST LOUIS 631DB
LAKS,HILLEL, GS
333 CEDAR ST
NEW HAVEN CT 0651D
LAM,ERNESTO,S, GS
142 E LOCKWOOD
ST LOUIS 63I19
LAMB,WANDA, P
456 N NEW BALLAS RD
SUITE 282
ST LOUIS 63I4I
LAMPROS,WM,PETER, OTU
1035 BELLEVUE
ST LOUIS 63117
LANDAU,WM,MILTON, N
640 S KINGSHIGHWAY
ST LOUIS 6311D
LANDER,ROBERT,C, ORS
49I9 FOREST PARK
ST LOUIS 63I0B
LANDRY,J,HUBERT, R
262I N BALLAS RD
ST LOUIS 63I3I
LANDY,RICHARD, PTH
6I50 OAKLAND
ST LOUIS 63I39
ANE,CLINTON,WELSH, D
950 FRANCIS PL
ST LOUIS 63105
ANE,DANL,KERNS, D
950 FRANCIS PL
ST LOUIS 63105
ANG,JOHN,JOS, R
5D7 FAIRWAYS CIRCLE
ST LOUIS 63141
ANGE,ADOLPH,CHAS, OPH
607 N GRAND BLVD
ST LOUIS 63103
ANGENBACH,ALFRED,M, GP
I0012 WOODLAWN
ST LOUIS 63124
ANIER,EARL,W, GP
2386 NORTH HWY 67
FLORISSANT 63033
ANSANGAN,ISAIAS,PENA, IM
BOX 796 E
ARNOLD 63010
AROCCA,FELIX,FRANCISCO,
I8 WEST POINT LANE
ST LOUIS 6313I

LARSEN,KENNETH,V, OBG
22D NORTHLAND MED BLDG
ST LOUIS 63136
LARSEN,VIRGINIA,LAWRENCE, PD
5825 SOUTHWEST ST
ST LOUIS 63I39
LARSON,PAUL,U, IM
3654 S GRAND BLVD
ST LOUIS 63118
LATTINVILLE,HENRY,ELMER, NS
I2255 DEL PAUL DR SUITE 830
BRIDGETON 63044
LAU,LUIS, P
I467 REAUVILLE DR-WARSON WOODS
ST LOUIS 63I22
LAUER,JOHN,DONALD, R
555 HIGH MEADOW RD
ST LOUIS 6313I
LAUX,FRANCE,ALBERT, PTH
282I NORTH NEW BALLAS
ST LOUIS 63I31
LAWRENCE,GEO,H, N
73D1 ST CHARLES ROCK RD
ST LOUIS 63I33
LAWTON,JOHN,T, IM
522 NORTH NEW BALLAS RD
ST LOUIS 63I4I
LE BLANC,LEO,J, CRS
621 S NEW BALLAS RD
ST LOUIS 6314I
LEACH,WILFRED, OTO
3655 VISTA AVE
ST LOUIS 63II0
LEARY,DANL,JOS, R
I574 MASON VALLEY RD
ST LOUIS 63131
LEE,DUK,SUNG, AN
267 GLEN VALLEY DR
CHESTERFIELD 63017
LEE,FRANSISKA,ANN, TR
5ID S KINGSHIGHWAY
ST LOUIS 63IID
LEE,YEW SOONG, N
5D ARUNDEL PLACE
ST LOUIS 63105
LEIGHTNER,WM,FRED, IM
550 BEDFORD AVE
ST LOUIS 6313D
LENOBEL,MILTON,I, ORS
I6 GRANADA WAY
ST LOUIS 63124
LENOBEL,ROBERT,S, R
I40 GAY AVE
ST LOUIS 63ID5
LEONE,CHERYL, PTH
3D15 N BALLAS
ST LOUIS 63131
LEONE,PHILIP,GEO, PTH
6DI S BRENTWOOD
ST LOUIS 63I05
LEPLEY,CHARLES, IM
4349 FOREST PARK
APT 5
ST LOUIS 63I06
LEPLEY,ROSALYN, FP
1322 NIEDERINGHAUS
GRANITE CITY IL 62040
LERWICK,EVERETT,ROGER, GS
2821 BALLAS RD N
ST LOUIS 63131
LEU,FEI,TUNG, HEM
604 BENDER AVE
EAST ALTON IL 62D24
LEVITT,JOS, CD
8515 DELMAR BLVD
ST LOUIS 63124
LEVITT,ROBT,GORDON, DR
510 S KINGSHIGHWAY
ST LOUIS 6311D
LEVY,IRWIN, N
BARNES HOSP PLAZA STE 5I06
ST LOUIS 63I10
LEVY,JEROME,FRED, GS
4989 BARNES HOSP PLAZA
ST LOUIS 63I1D
LEVY,MORTON,ALLAN, HEM
522 N NEW BALLAS RD
CREVE COEUR 63I41
LEWIS,CHAS,RICHARD, FP
1I155 DUNN RD-STE 2I3
ST LOUIS 63136
LEWIS,JAMES,E, PDS
I4D1 S GRAND BLVD GLENNON HALL
ST LOUIS 63I04
LEWIS,ROBERT,D, OPH
3660 VISTA
ST LOUIS 63I04
LIANG,HOWARD,S, AN
I429 REAUVILLE DR
ST LOUIS 63I22
LIAO,KUN,TWU, PTH
11636 ADMINISTRATION DR
ST LOUIS 63I41
LIEB,FRANCIS,XAVIER, PD
621 S NEW BALLAS RD
ST LOUIS 63141

LIEBERMAN,DAVID,M, IM
4989 BARNES HOSP PLAZA
ST LOUIS 63IID
LILLY,DOUGLAS,R, NM
62I S NEW BALLAS RD
ST LOUIS 63I41
LIM,IL,TAIK, AN
I325 S GRAND BLVD
ST LOUIS 63ID7
LIMPATARMONKOL,PIEMSAKDI, OBG
625 DOUGHTERTY VIEW CT
DES PERES 63I3I
LINDEMAN,CARL,HENRY, GP
71DI WESTMORELAND
ST LOUIS 63I3D
LINDEMAN,JOHN,FRANCIS, NM
402 CLAYMONT
BALLWIN 63DI1
LINK,ALEXANDER,J, R
262I N BALLAS ROAD
ST LOUIS 63I31
LIPSITZ,ELLIS,SIGMUND, IM
451I FOREST PARK
ST LOUIS 63106
LISCHER,CARL,E, GS
27 BRIARCLIFF
ST LOUIS 63I24
LITTLE,MONROE,HENRY, GP
7830 BLACKBERRY AVE
ST LOUIS 63I30
LITTMANN,LEWIS,E, IM
665 S SKINKER BLVD
ST LOUIS 63I05
LOEB,VIRGIL, ND
4969 BARNES HOSP PLAZA
ST LOUIS 631I0
LOEFFEL,ELLEN,SHATTUCK, GYN
3654 SO GRAND
ST LOUIS 63I1B
LOGIE,MAC,DONALD BRUCE, R
10D N EUCLID AVE
ST LOUIS 63108
LOITMAN,BERNARD,S, R
10 WASHINGTON TERR
ST LOUIS 63112
LONDE,ALAN,MERLE, GS
456 N NEW BALLAS RD
ST LOUIS 63141
LONDE,SOL, PD
44DO LINDELL APT 4B
ST LOUIS 6310B
LONDON,STANLEY,L, GS
456 N NEW BALLAS RD
ST LOUIS 63141
LONERGAN,WARREN,M, IM
49I0 FOREST PARK AVE
ST LOUIS 631D8
LONG,FRANK,BARNES, OBG
1034 S BRENTWOOD BLVD
ST LOUIS 631I7
LONSWAY,MAURICE,J, PD
6025 DALE AVE
ST LOUIS 63117
LOPPICCOLO,VINCENT,J, PD
2821 N BALLAS RD
ST LOUIS 63131
LOPPICCOLO,VINCENT,J, IM
1913 MARCONI AVE
ST LOUIS 631I0
LOTTES,J,OTTO, ORS
6434 CHIPPEWA ST
ST LOUIS 63109
LOWENSTEIN,PAUL,S, GS
16 S KINGSHIGHWAY BLVD
ST LOUIS 63IDB
LOYNO,ROBT,CHRISTOPHER, OTU
95D FRANCIS PL
CLAYTON 63I05
LU,FANG,TSE, GP
I2858 SOMERTON RIDGE DR
ST LOUIS 6314I
LUCIDO,JOSEPH,L, CD
1D35 BELLEVUE AVE
ST LOUIS 63II7
LUECHTEFELD,FRANK, ORS
12255 DE PAUL DR
BRIDGETON 63D44
LUEDDE,PHILIP,S, OPH
4424 HAMPTON AVE
ST LOUIS 63109
LUGO,SAML, GS
3125 LEMAY FERRY RD
ST LOUIS 63I25
LUH,ANDREW,M, ORS
4110 VON TALGE RD
ST LOUIS 63128
LUM,JON,TEK, P
9376 OLIVE BLVD STE 215
ST LOUIS 63132
LUTZ,MARTIN,HENRY, OM
31 AYLESBURY DR
ST LOUIS 63132
LYMAN,EDWARD,H, OTU
950 FRANCIS PL
ST LOUIS 63I05
LYNXWILER,CHESTER,PAUL, PD
1DD65 DODGE DR
FENTON 63026

LYTTLE,GARNET,CRAWFORD, OS
665 S SKINKER BLVD
ST LOUIS 63105
MAC DONALD,ROBT,R, R
621 S NEW BALLAS RD
ST LOUIS 63141
MACDONALD,WM,CHAS, IM
6744 CLAYTON RD
ST LOUIS 63117
MACHEK,OTAKAR, PM
6744 CLAYTON RD
ST LOUIS 63117
MACNISH,JAMES,MARTIN, U
4919 FOREST PARK
ST LOUIS 63108
MADDIPATI,SREEDEZI, AN
1325 SOUTH GRAND
ST LOUIS 63104
MADOC JONES,HYWEL, TR
4511 FOREST PARK BLVD
SUITE 311
ST LOUIS 63108
MADRID,DOMINADOR,D, GS
11727 DOVER HILL DR
ST LOUIS 63128
MAGINN,R,REILLY, GS
911 S BRENTWOOD
ST LOUIS 63105
MAHER,THOS,FRANCIS, R
621 S NEW BALLAS RD
ST LOUIS 63141
MALIK,SARFRAZ,A, IM
2632 S KINGSHIGHWAY
ST LOUIS 63139
MALLYA,ASHOK,R, P
5400 ARSENAL ST
ST LOUIS 63139
MALONEY,ROBT,MICHAEL, U
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109
MAMINTA,NAPOLEON,SIM, PTH
2284 WHITBEY RD
CHESTERFIELD 63017
MANANSALA,ANTONIO,QUITO, GP
13335 CONWAY RD
ST LOUIS 63141
MANES-MARTINEZ,JOSE, PTH
5505 DELMAR
ST LOUIS 63112
MANGANARO,FRANK,JOS, IM
1520 S BRENTWOOD
ST LOUIS 63144
MANION,MARIA,ELENA, CHP
1000 WATSON ROAD
CRESTWOOD 63126
MANION,PETER,JOHN, PD
3917 BRANNON AVE
ST LOUIS 63109
MANLEY,CHAS,BENTON, U
449 SHERWOOD DR
ST LOUIS 63119
MANN,ELIZABETH,M DANKER, P
11 SOUTH MERAMEC
ST LOUIS 63105
MANSKE,PAUL,R, ORS
4960 AUDUBON
ST LOUIS 63110
MANTOVANI,JOHN,F, PD
6104 HEEGE RD
ST LOUIS 63123
MARANAN,DIOSDADO,L, EM
4792 VERMILLION DR
ST LOUIS 63128
MARCHOSKY-KOGAN,JOSE,A, NS
1507 CERULEAN DR
ST LOUIS 63141
MARGOLIS,DAVID,M, GE
BARNES HOSP
ST LOUIS 63110
MARSH,JEFFREY,L, PS
500 S KINGSHIGHWAY
ST LOUIS 63110
MARTEL,DOMINIQUE,J A, AN
7344 PRINCETON AVE
ST LOUIS 63130
MARTIN,DANL,JOS, OBG
500 NORTHWEST PLAZA
ST ANN 63074
MARTIN,DAVID,STUART, R
2040 YALE
ST LOUIS 63143
MARTIN,JAMES,MAURICE, R
RT #4 COVE LANE
LAKE SERENE
HATTIESBURG MS 39401
MARTIN,JOHN,BARLOW, OBG
9918 WARSHIRE DR
ST LOUIS 63132
MARTIN,THOS,FRANCIS, IM
ST ELIZABETH HOSP
GRANITE CITY IL 62040
MARTIREZ,EMMANUEL, R
616 GARDEN LEAF
BALLWIN 63011
MASSIE,EDWARD, CD
9806 LITZSINGER ROAD
ST LOUIS 63124

MASTERS,WM,HOWELL, OS
4910 FOREST PARK BLDG
ST LOUIS 63108
MATHES,STEPHEN,J, PS
4960 AUDUBON
ST LOUIS 63110
MATHEW,MALEAKAL,S, CHP
10695 BELLEFONTAINE RD
ST LOUIS 63137
MATTHEWS,JOHN,GERARD, IM
3707 WATSON RD
ST LOUIS 63109
MAUGHS,SYDNEY,BROWN, P
1034 S BRENTWOOD BLVD STE 1160
ST LOUIS 63117
MAX,PAUL,FRANKLIN, OBG
950 FRANCIS PL
CLAYTON 63105
MAYFIELD,WM,ROSS, IM
621 S NEW BALLAS RD
ST LOUIS 63141
MAYUGA,EDGARDO,G, AN
10010 KENNERLY RD
ST LOUIS 63128
MC ADAM,CHAS,RUSH, GP
7516 FLORISSANT RD
ST LOUIS 63121
MC AFEE,CHESTER,ALAN, GS
5505 DELMAR BLVD RM 300
ST LOUIS 63112
MC ALISTER,WM,HERBERT, OR
510 S KINGSHIGHWAY
ST LOUIS 63110
MC CARTHY,JOHN,M, IM
1035 BELLEVUE AVE
ST LOUIS 63117
MC CARTY,MICHAEL, PTH
216 S KINGSHIGHWAY
ST LOUIS 63110
MC CAUGHAN,JOHN,MILTON, GS
4605 LINDELL BLVD
ST LOUIS 63108
MC CLOSKEY,ROBT,B, OTO
6651 CHIPPEWA
ST LOUIS 63109
MC CLURE,JAMES,N, P
6327 WESTMINSTER PL
UNIVERSITY CITY 63130
MC COOL,JAMES,FRANCIS, IM
3915 WATSON RD
ST LOUIS 63109
MC COOL,STANLEY, IM
VETERANS ADMINISTRATION HOSP
JEFFERSON BARRACKS
ST LOUIS 63125
MC COWN,ALLAN,HARDY, R
9801 LOG CABIN CT
ST LOUIS 63124
MC FADDEN,MICHAEL,R, U
1327 NORTH THIRD
STURGEON BAY WI 54235
MC KINNEY,JOE,KENT, P
777 S NEW BALLAS RD-STE 234E
ST LOUIS 63141
MC LAUGHLIN,KATHLEEN,S W, PTH
1824 TOPPING RD
ST LOUIS 63131
MC NAMARA,JOHN,J, R
21 BERKSHIRE
RICHMOND HEIGHTS 63117
MC SWINEY,JOHN,GILBERT, GP
10 ADAMS ST
FERGUSON 63135
MEHAN,DONALD,J, U
1035 BELLEVUE
ST LOUIS 63117
MEHRA,RAVINDER,BAIJNATH, CO
10000 WATSON RD STE P
CRESTWOOD 63126
MEHRA,USHA, OBG
10000 HIGHWAY 366
CRESTWOOD 63126
MEINBERG,WM,HENRY, OPH
7052 MARYLAND AVE
ST LOUIS 63130
MEINERS,PAUL,NEWELL, GS
12255 DE PAUL DR
SUITE 240
BRIDGETON 63044
MEINERS,THEODORE,M, OBG
6235 WATERMEN
ST LOUIS 63130
MELICK,WM,FRANK, U
911 S BRENTWOOD #226
ST LOUIS 63105
MELL,ROGER,LEE, ORS
1034 S BRENTWOOD BLVD
SUITE 650
RICHMOND HEIGHTS 63117
MELSON,GLENN,LELAND, OR
510 S KINGSHIGHWAY
ST LOUIS 63110
MENDELSOHN,GEORGE, NS
5505 DELMAR
ST LOUIS 63112
MENDELSOHN,ROBT,SIMON, IM
522 NORTH NEW BALLAS
ST LOUIS 63141

MENDEZ,MANUEL, P
6424 SOUTHLAND AVE
ST LOUIS 63109
MENDONSA,LAWRENCE,E, OBG
9611 W FLORISSANT BLVD
ST LOUIS 63136
MENENDEZ,MANUEL, PTH
15189 ISLEVIEW DR
BALLWIN 63011
MERENDA,SAM,JOHN, R
6651 CHIPPEWA
ST LOUIS 63109
MESTRES,HUGH,MICHAEL, PD
12660 LAMPLIGHTER SQ
ST LOUIS 63128
METZ,CHAS,OLIVER, GP
6459 DEVONSHIRE AVE
ST LOUIS 63109
MEYER,HERMAN,M, IM
6215 PERSHING AVE
ST LOUIS 63130
MEYER,JOHN,STRAUCH, CLP
216 SOUTH KINGSHIGHWAY
ST LOUIS 63110
MEYER,MELVIN,EUGENE, OPH
4424 HAMPTON ST
ST LOUIS 63109
MEYER,WAYNE,W, GS
4717 PARC ORLEANS CT F-G
BRIDGETON 63044
MEYERS,ELSIE,E FLINT, AN
6364 ALEXANDER DR
CLAYTON 63105
MEYERS,JOHN,BOYD, IM
120 NORTH FORSYTH BLVD
CLAYTON 63105
MEYERS,ROBT,W, PYA
4524 FOREST PK BLVD
ST LOUIS 63108
MICHAEL,KENNETH,DONALD, P
777 S NEW BALLAS RD STE 324 W
ST LOUIS 63141
MICHAELREE,JOHN,FRANCIS, GP
9705 HIGHWAY 66
CRESTWOOD 63126
MIER,THOS,MATTHEW, OBG
1035 BELLEVUE
ST LOUIS 63117
MILES,WAYNE,B, A
2850 W CLAY
ST CHARLES 63301
MILL,WM,B JR, TR
510 S KINGS HGWY
ST LOUIS 63110
MILLER,CHARLES, D
10004 KENNERLY RD
ST LOUIS 63126
MILLER,EDWARD,J, IM
522 N NEW BALLAS STE 349
ST LOUIS 63141
MILLER,GEOFFREY,WM, R
4511 FOREST PARK BLVD
ST LOUIS 63108
MILLER,JAMES,E, OPH
ST LOUIS CHILDRENS HOSP
ST LOUIS 63110
MILLER,JAMES,ROLLAND, PTH
99 TRENT DR
ST LOUIS 63124
MILLER,JULE,P, PYA
4524 FOREST PARK BLVD
ST LOUIS 63108
MILLER,NORMAN,C, GP
5006 THOLOZAN
ST LOUIS 63109
MILLER,ROBT,NICHOLAS, AN
ST JOHNS MERCY MED CTR-ANES
ST LOUIS 63141
MILLER,WILLIAM, R
510 S KINGSHIGHWAY BLVD
ST LOUIS 63109
MILLER,WM,VENCILL, CLP
4050 LINDELL BLVD
ST LOUIS 63108
MILSTEAD,KENNETH,L, AN
4817 DORSET AVE
CHEVY CHASE MD 20015
MILSTER,CLYDE,ROGERS, OPH
906 OLIVE ST
ST LOUIS 63101
MIRBAHA,MITCHELL,M, ORS
4110 VON TALGE RD
ST LOUIS 63128
MISHKIN,MARVIN,R, ORS
522 N NEW BALLAS RD
ST LOUIS 63141
MISKOVSKY,EMIL,F, IM
RUSH HILL FARM
SHEPARD RD
BOX 635
GLENCOE 63038
MISSEY,WILBURN,C, CO
621 S NEW BALLAS RD
ST LOUIS 63141
MISTRY,TEHMTON,SHIAVUX, OBG
35 N CENTRAL
MID-COUNTY OB-GYN GROUP
ST LOUIS 63105

MITCHELL,EUGENE,N, GS
3737 NORTH KINGSHIGHWAY BLVO
ST LOUIS 63115
MITHEN,FRANCIS,ANOREW, OS
3877 MARIETTA
ST LOUIS 63121
MODJTEHEDY,MOHAMMAO,H, GS
2601 N WHITTIER ST
ST LOUIS 63113
MOELLER,FRANK,DELBERT, OBG
777 SO NEW BALLAS RO
ST LOUIS 63141
MONAFO,WM,WINTHROP, GS
615 S NEW BALLAS RO
ST LOUIS 63141
MONTANI,CHAS, GP
5147 OAGGETT AVE
ST LOUIS 63110
MONTGOMERY,AUSTIN,F, IM
2821 NORTH BALLAS RO
ST LOUIS 63131
MOOLSINTONG,PORNCHAI, R
2447 COUNTRY RUN CT
MARYLAND HEIGHTS 63043
MUORE,ALVA, IM
5142 RAYMONO AVE
ST LOUIS 63113
MORALES,JULIU, CHP
369 N TAYLOR
ST LOUIS 63106
MORAN,THOS,MICHAEL, P
1221 S GRANO BLVD
ST LOUIS 63104
MORGAN,HARRY,C, ORS
515 TECUMSEH
ST LOUIS 63141
MORGAN,STEPHAN,SHANE, OPH
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109
MORITZ,GERALO, OTO
1125 GRAHAM RD
FLORISSANT 63031
MORRIN,KEVIN, OBG
5251 WESTMINSTER PL
ST LOUIS 63108
MORRIS,ALAN,H, ORS
522 N NEW BALLAS RO
ST LOUIS 63141
MORRIS,HARVEY,EOWARO, GP
433 POWELL AVE
ST LOUIS 63135
MORRIS,MARY,ELIZABETH, OBG
2710 S GRANO APT B01
ST LOUIS 63103
MORRISON,ARLEN,EOWARO, IM
2821 N BALLAS RO
ST LOUIS 63131
MORTENSEN,FREOE, IM
3555 SUNSET OFFICE OR
ST LOUIS 63127
MOSES,ROBT,ABRAM, OPH
660 S EUCLIO AVE
ST LOUIS 63110
MOSLEY,JULIAN,C, GS
3737 N KINGSHIGHWAY
ST LOUIS 63115
MOSQUERA,JAIME,JAVIER, OBG
1245 GRAHAM ST
FLORISSANT 63031
MOTZEL,ALBERT,JOS, GP
6238 WASHINGTON BLVD
ST LOUIS 63130
MOUNTJOY,GRACE,S, OS
MARI DE VILLA RETIRMNT CTR
MANCHESTER 63011
MOWREY,WM,OLIVER, GP
231 NORTHLAND MED BLOG
ST LOUIS 63136
MUCKERMAN,RICHARD,I C, OBG
621 S NEW BALLAS RD
ST LOUIS 63141
MUDO,J,F GERARD, CD
1325 S GRAND BLVD
ST LOUIS 63104
MUELHEIMS,GERHARD,H, IM
1515 LAFAYETTE AVE
ST LOUIS 63104
MUELLER,CLARENCE,E, IM
522 N NEW BALLAS RD-STE 243
ST LOUIS 63141
MUELLER,JOS,ARTHUR, GP
3654 S GRAND BLVD
ST LOUIS 63118
MUELLER,MORRIS,ALBERT, GP
4917 RAVENSWOOD APT 111
SAN ANTONIO TX 78227
MUELLER,ROBT, GP
275 UNION BLVD
ST LOUIS 63108
MUELLER,WILBUR,KENNETH, R
9645 BIG BEND BLVD
BETHESDA DILWORTH MEM HOME
ST LOUIS 63122
MUJUMDAR,SUHAS,PRABHAKAR, U
COACHMAN EAST APT 5106
LINDENWOLD NJ 08021

MULLIGAN,LEO,VIRGIL, GS
665 S SKINKER RO
ST LOUIS 63105
MULLINS,JUHN,EOWARO, IM
777 S NEW BALLAS RO
ST LOUIS 63141
MURPHY,GEO,E, P
4940 AUDUBON AVE
ST LOUIS 63110
MURPHY,JAMES,PATRICK, CD
911 S BRENTWOOO BLVO
CLAYTON 63105
MURPHY,WM,ALEXANDER, OR
510 S KINGSHIGHWAY
ST LOUIS 63110
MUSCHANY,NORMAN,K, OBG
522 N NEW BALLAS RD
ST LOUIS 63141
MYERS,GARY,HARRIS, N
2821 N BALLAS RO
ST LOUIS 63131
NAHM,CHUNG,CHICK, IM
3535 SOUTH JEFFERSON AVE
ST LOUIS 63118
NAIR,K, P G,
183 CARMEL WOODS
ELLISVILLE 63011
NALAGAN,MARCUS,C, IM
9936 HIGHWAY 66
ST LOUIS 63126
NARAYAN,OILIP,L, IM
5505 OELMAR
ST LOUIS 63112
NARYKA,JOS,J, U
911 S BRENTWOOO #226
ST LOUIS 63105
NASEER,RIAZ,AHMAO, N
BARNES HOSPITAL PLAZA
ST LOUIS 63110
NASH,HELEN,ELIZABETH, PD
1441 N GRANO
ST LOUIS 63106
NATHAN,LESTER,J, GS
777 S NEW BALLAS RO
ST LOUIS 63141
NEAR,OAVIO,MYRON, GS
1125 GRAHAM ROAD
FLORISSANT 63031
NELSON,JAMES,SMITH, PTH
23 ABERDEEN PL
CLAYTON 63105
NEMEC,EDWARO,STANLEY, IM
1325 S GRANO
ST LUUIS 63104
NEMEC,STANLEY,S, R
6500 CHIPPEWA STE 1
ST LOUIS 63109
NEWMAN,MATTHEW, OPH
100 N EUCLIO AVE
ST LOUIS 63108
NEWMAN,PERCY, OS
1109 N HANLEY RO
ST LOUIS 63130
NEWMARK,LEONARO,NATHAN, IM
777 S NEW BALLAS RO STE 305W
ST LOUIS 63141
NEWTON,GORDON, IM
1034 S BRENTWOOD BLVD
ST LOUIS 63117
NEWTON,WM,T, GS
915 N GRAND BLVD
ST LOUIS 63106
NICHOLS,STEVEN,H, PTH
10010 KENNERLY RO
ST LOUIS 63128
NICKEL,JAMES,FRANCIS, IM
621 S NEW BALLAS RD STE 460
ST LOUIS 63141
NICOLAI,CHAS,HERBERT, U
2821 N BALLAS RO
ST LOUIS 63131
NIEDERMEYER,GEO,JOS, OBG
6744 CLAYTON RD
ST LOUIS 63117
NIESEN,FRANK,JOS, ABS
6500 CHIPPEWA
ST LOUIS 63109
NIGH,CHAS,ALLEN, GS
3915 WATSON RD
ST LOUIS 63109
NIMMAGADDA,HARANADHA, OPH
1325-H SHARONDALE
ST LOUIS 63135
NISHI,TOSHIO, PTH
3071 ANDOVER DR
ST LOUIS 63121
NOLAN,CHAS,JOS, R
MAC 4TH & WASHINGTON ROOM 77
ST LOUIS 63102
NOMURA,ROY,MARK YOSHITO, PTH
777 S NEW BALLAS
ST LOUIS 63141
NORLAND,CHAS,CARSSOW, IM
114 N TAYLOR
ST LOUIS 63108
NORONHA,REYNOLD,FRANCIS, U
1325 S GRAND
ST LOUIS 63104

NOURI,HASSAN, OBG
12622 ALSWELL LANE
ST LOUIS 63128
NYE,ROBT,SIMPSON, GP
8701 GRAVOIS AVE
ST LOUIS 63123
O'BRIEN,EOWARO,C, GP
605 CANDLEBURY CT-APT B
ST LOUIS 63122
O'BRIEN,EDWARD,JOS, R
6150 OAKLANO AVE
ST LOUIS 63139
O'BRIEN,ROBERT,M, ORS
777 S NEW BALLAS RO
ST LOUIS 63141
O'CONNELL,TIMOTHY, GS
443 ASHFORO CT
ST LOUIS 63129
O'DONNELL,JOS,VINCENT, IM
1661 OUNMORR
ST LOUIS 63131
O'OOWO,JAMES,AUSTIN, GP
9405 MACKENZIE RO
ST LOUIS 63123
O'NEAL,LAWRENCE,WAYNE, GS
1034 S BRENTWOOO BLVO
ST LOUIS 63117
O'REILLY,O,ELLIOTT, ORS
1325 S GRANO BLVO
ST LOUIS 63104
O'SULLIVAN,DANL,FRANCIS, GS
10007 KENNERLY RO
SUITE A
ST LOUIS 63128
OAKLEY,MARGARET,MARY F, AN
407 STEEPLE CHASE
ST LOUIS 63131
OBADINA,OLUKUNLE,OLUKUY, GS
2601 N WHITTIER
ST LOUIS 63113
OBERMEYER,CHAS,GEO, AN
3957 HOLLY HILLS BLVD
ST LOUIS 63116
OOUJEBE,HENRY,A, GS
2601 N WHITTIER
ST LOUIS 63113
OETTER,OONALO,L, FP
1040 MASON RD N
ST LOUIS 63141
OGNYANOV,VOISLAV,FILIP, P
551 WHITE ROSE LANE
ST LOUIS 63132
OGURA,JOS,HIROSUKE, OTO
1038 WINWOOD ORIVE
ST LOUIS 63124
OHMOTO,MASAO, IM
141 M MERAMEC ST STE 11
CLAYTON 63105
OJASCASTRO,ALEJANORO,C, GP
9465 CROOKEO CREEK TRAIL
ST LOUIS 63127
OKUN,EOWARO, OPH
4989 BARNES HOSP PLAZA
ST LOUIS 63110
OLLINGER,HENRY,G, PS
4910 FOREST PARK
ST LOUIS 63110
OLNEY,JOHN,WM, P
BARNES HOSP
ST LOUIS 63110
OLSON,ROBT,E, IM
1402 S GRAND BLVD
ST LOUIS 63104
ONG,ENG,LIAT C, EM
1276 WHITE RD
CHESTERFIELD 63017
ONG,OFELIA,SANTOS, OBG
1276 WHITE RD
CHESTERFIELD 63017
ONKEN,HENRY,ORALLE, PS
106 ABERDEEN
ST LOUIS 63105
OPPENHEIMER,HENRY,E, OIA
141 N MERAMEC AVE
CLAYTON 63105
ORENSTEIN,JOSEPH,M, PUD
417 JACKSON AVE
ST LOUIS 63130
ORGEL,MAURICE,NORMAN, IM
1 HARCOURT DR
ST LOUIS 63105
ORGEL,STUART,MICHAEL, IM
14 FOROYCE LANE
ST LOUIS 63124
ORILLE,OSCAR,P, PH
717 ROLLISON
BLYTHEVILLE AR 72315
ORSAY,PAUL,KALMAN, OR
11155 DUNN RD RM 201
ST LOUIS 63136
ORSZULAK,THOS,ANTHONY, TS
1432 20TH ST NW
ROCHESTER MN 55901
ORTBALS,DAVID,W, ID
8631 DELMAR BLVD SUITE 201
ST LOUIS 63124

ORTIGUERO,LEOPOLDO,M, GP
10577 WINDSWEPT DR
ST LOUIS 63128
ORTMEYER,LEROY,FRANK, IM
11372 FIVE OAKS PARKWAY
ST LOUIS 63128
OSTAPOWICZ,FRANK, OBG
3660 VISTA AVE
ST LOUIS 63110
OTT,FLETCHER,THOS, OPH
3 HILL DRIVE
GLENDALE 63122
OTT,HAROLD,JOHN, OBG
1695 S BRENTWOOD BLVD
ST LOUIS 63144
OTT,WM,JOHN, OBG
1035 BELLEVUE
ST LOUIS 63117
OWEN,ROBT,F, IM
12 HACIENDA DR
ST LOUIS 63124
OWENS,WM,DON, AN
BARNES HOSP PLAZA DEPT ANES
ST LOUIS 63110
OZMAT,ORHAN,METIN, R
4 LA DUE CREST LANE
ST LOUIS 63124
PACKMAN,ROBT,CHAS, IM
4652 MARYLAND AVE
ST LOUIS 63108
PADILLA,TERESITA,C, OBG
5505 DELMAR BLVD
ST LOUIS 63112
PAINE,ROBT, CD
5535 DELMAR BLVD
ST LOUIS 63112
PALAZZO,FRANK,A, NS
6744 CLAYTON RD
ST LOUIS 63117
PALETTA,FRANCIS,XAVIER, PS
1035 BELLEVUE
ST LOUIS 63117
PALETTA,FRANK, IM
12330 D INTERIDGE DRIVE
MARYLAND HEIGHTS 63043
PALETTA,THEODORE,LEONARD, IM
1040 MASON RD N
ST LOUIS 63141
PALETTA,VICTOR,LEONARD, CD
-585 COEUR DE ROYALE APT 402
ST LOUIS 63141
PAPPALARDO,CARLOS, PS
621 S NEW BALLAS RD
ST LOUIS 63141
PARDO,LEOPOLDO,P, NS
9936 HIGHWAY 66
ST LOUIS 63126
PARK,CHONG,KWAN, OBG
P O BOX 142
WATERLOO IL 62298
PARK,KUN,HOEE, OBG
303 MAIN ST
FESTUS 63028
PARKER,THOS,WAYNE, IM
7298 GREENWAY DR
ST LOUIS 63130
PARMAR,HARSHADRAI,K, GP
600 E MAC DONALD
MAN WV 25635
PARSONS,RICHARD,PLATTNER, U
777 S NEW BALLAS RD
ST LOUIS 63141
PARTAP,PRABHA, PTH
9620 HARTSDALE DR
ST LOUIS 63126
PARWATIKAR,SADASHIY,O, P
5400 ARSENAL ST
ST LOUIS 63139
PASKAR,LARRY,DAVID, R
1246 MONCOEUR
ST LOUIS 63141
PASSANANTE,BARTHOLOMEW,M, GS
15 KING LYNN
ST LOUIS 63132
PATEL,B,K, R
1711 PRENDERGAST LANE
ST LOUIS 63138
PATEL,SHARAD,B, AN
ST JOHNS MERCY HOSP
ST LOUIS 63141
PATRICK,ROMAN,LEE, PTH
11636 ADMINISTRATION DR
CREVE COEUR 63141
PATTON,DOUGLAS,STANNAGE, PS
2940 SUMMIT ST
OAKLAND CA 94609
PAUL,PAUL,V, GS
321 BARRINGTON SQ
ST LOUIS 63122
PAYNE,MEREDITH,C JORSTAD, PS
7314 WESTMORELAND PLACE
ST LOUIS 63130
PAYNE,RICHARD,L, PTH
2639 MIAMI ST
ST LOUIS 63118
PAYNE,VAUGHN,COLFAX, GPM
1423 N GRAND BLVD
ST LOUIS 63106

PEARLMAN,ALAN,LEE, N
660 S EUCLID AVE
ST LOUIS 63110
PEDEN,BURNET,WILCOX, IM
35 N CENTRAL AVE
CLAYTON 63105
PEDEN,JAMES,CLARK, IM
621 S NEW BALLAS RD
ST LOUIS 63141
PEDEN,JOS,CARROLL, GS
5505 DELMAR STE 300
ST LOUIS 63112
PEDEN,JOS,CARROLL, R
665 S SKINKER BLVD APT 7-D
ST LOUIS 63105
PELICAN,GEORGE, GE
621 S NEW BALLAS RD
ST LOUIS 63141
PELZ,MORT,O, OTO
245 UNION BLVD
ST LOUIS 63108
PENILLA,ANTONIO,RESUMA, IM
3159 FEE FEE RD
BRIDGETON 63044
PENNINGTON,FRANCIS,E, GS
4160 GLIDDEN DR
STURGEON BAY WI 54235
PEPPER,EDWARD,GEO, R
6150 OAKLAND AVE
ST LOUIS 63139
PEPPER,MAX,PHILIP, PH
DEPT OF COMMUNITY MEDICINE
ST LOUIS UNIV SCHOOL OF MED
1320 S GRAND
ST LOUIS 63104
PEREZ,ADAMOR,R, GS
4415 VERMILLON DR
ST LOUIS 63128
PEREZ,BLANCA,M, PTH
216 SOUTH KINGSHIGHWAY BLVD
ST LOUIS 63110
PEREZ,CARLOS,A, TR
510 S KINGSHIGHWAY
ST LOUIS 63110
PEREZ,RAUL,ALBERTO, GP
10510 HACKAMORE LANE
ST LOUIS 63128
PERKINS,DAVID,ELWOOD, DR
1034 S BRENTWOOD
ST LOUIS 63117
PERKOFF,GERALD,THOS, IM
DIVISION OF HEALTH CARE RES
WASHINGTON U SCHOOL OF MED
4566 SCOTT AVE
ST LOUIS 63110
PERNOUD,FLAVIUS,G, OPH
1035 BELLEVUE
ST LOUIS 63117
PERNOUD,MICHAEL,FRANK, OPH
51 FRONTENAC
ST LOUIS 63131
PERRY,HORACE,M, CD
915 N GRAND
ST LOUIS 63106
PESKIN,EDWARD,G, OBG
4911 BARNES HOSPITAL PLAZA
ST LOUIS 63110
PETERSON,GARY,JOHN, GS
6736 EL PROGRESSO ST
LONG BEACH CA 90815
PFEIFER,OLIVER,CONRAD, GP
6567 MURDOCK
ST LOUIS 63109
PHILLIPS,ABRAHAM,MANUEL, PD
777 S NEW BALLAS RD
ST LOUIS 63141
PHILLIPS,JOHN,J, ORS
12255 DE PAUL DR
SUITE 250
BRIDGETON 63044
PHILLIPS,WM,JOE, IM
5505 DELMAR
ST LOUIS 63112
PHILPOTT,GORDON,WILSON, GS
216 SOUTH KINGSHIGHWAY
ST LOUIS 63110
PICCIONE,LEONARD,N, GP
2377 BROADMONT CT
CHESTERFIELD 63017
PILLA,LAWRENCE,A, R
#7 HOMELAND PL
ST LOUIS 63109
PINEDA,HECTOR,O, IM
5203 CHIPPEWA
ST LOUIS 63109
PIPER,AUGUST,THOS, IM
4903 MARTIN LUTHER KING DRIVE
ST LOUIS 63113
PITSINGER,NOLAN,BRUCE, GS
5505 DELMAR ST STE 511
ST LOUIS 63112
PITTMAN,GERALD,RAY, PTH
5 HIGH ACRES DR
ST LOUIS 63132
PITTMAN,SUSAN, PD
522 N NEW BALLAS RD
ST LOUIS 63141

PIZZIMBONO,CARLOS,A, GS
1212 BROADWAY
HIGHLAND IL 62249
PLAX,STEVEN,IRL, PD
8025 DALE
ST LOUIS 63117
PLESONS,JOHN,O, GP
6744 CLAYTON ROAD
ST LOUIS 63117
PLUMPE,WM,TUPPER, IM
3933 S GRAND
ST LOUIS 63118
PORPORIS,ARTHUR,A, R
824 RENDERER DR
ST LOUIS 63122
PORTUGAL,ANTONIO,Q, GS
6500 CHIPPEWA STE 116
ST LOUIS 63109
PORTUONDO,BONAVENTURE,C, PTH
3532 FLORA COURT
ST LOUIS 63104
POST,LAWRENCE,TYLER, OPH
211 N MERAMEC
CLAYTON 63105
POST,STEPHEN,LIGHTNER, P
4524 FOREST PARK APT 201
ST LOUIS 63108
POTASHNICK,ROBT, IM
12255 DE PAUL DR
SUITE B65
BRIDGETON 63044
POTTER,REESE,H, P
100 N EUCLID AVE
ST LOUIS 63108
POTTS,DAN,E, PUD
114 NORTH TAYLOR AVE
ST LOUIS 63108
POWELL,EARL,ALEXANDER, U
11114 PALMERAS DR
SUN CITY AZ 85351
POWERS,PIERCE,WM, GS
5203 CHIPPEWA ST
ST LOUIS 63109
PRENSKY,ARTHUR,LAWRENCE, N
DEPT OF PEDIATRICS WASH UNIV
500 S KINGSHIGHWAY
P O BOX 14871
ST LOUIS 63176
PRESANT,CARY,A, HEM
216 S KINGSHIGHWAY BLVD
ST LOUIS 63110
PRESNELL,CLEITUS,A, OTO
6744 CLAYTON RD
ST LOUIS 63117
PRICE,KENNETH,C, CD
5505 DELMAR- ROOM 201
ST LOUIS 63112
PROBSTEIN,JACOB,G,
4943 LINDELL BLVD
ST LOUIS 63108
PROPHETE,BEAUMANOIR, U
3737 N KINGSHIGHWAY BLVD
ST LOUIS 63115
PROSKEY,VINCENT,JAMES, IM
522 N NEW BALLAS RD
ST LOUIS 63141
PRUETT,BURCHARD,S, OS
10321 RICHVIEW DR
ST LOUIS 63127
PRUETT,DON,SHELBY, GS
10 LOG CABIN DR
ST LOUIS 63124
PRUETT,HUBERT,SHELBY, GP
9 MC KNIGHT LANE
ST LOUIS 63124
PRUSACZYK,JOS,VALENTINE, PD
12303 DE PAUL DR
ST LOUIS 63144
PURCELL,HARRY,KNOX, GS
911 S BRENTWOOD BLVD
ST LOUIS 63105
PURCELL,JOHN, OPH
6744 CLAYTON RD
ST LOUIS 63117
PUTHEN-PURACKAL,GEORGE,A, IM
3015 N BALLAS RD
ST LOUIS 63131
PYNE,HERBERT,SAML, GP
6651 CHIPPEWA
ST LOUIS 63109
QUICK,RICHARD,THOS, P
9821 COPPER HILL ROAD
ST LOUIS 63124
RADER,EDWARD,STANLEY, U
7744 DAVIS DR
CLAYTON 63105
RADER,GEO,B, GS
5505 DELMAR
ST LOUIS 63112
RADKE,JOHN,DAVID, CD
6150 OAKLAND AVE
ST LOUIS 63139
RAHMAN,MOUDUDUR, OPH
911 S BRENTWOOD
ST LOUIS 63105
RAICHLE,MARCUS,EDWARD, N
710 JAMAICA CT
ST LOUIS 63122

RAINEY,ROBT, OM
5165 LINDELL BLVO
ST LOUIS 63108
RAMIREZ,SAML,GATAN, IM
7449 W FLORISSANT
ST LOUIS 63136
RAMSEY,RDBT,HENRY, IM
11115 NEW HALLS FERRY RO
FLORISSANT 63033
RANDOLPH,BERNARD,C, GP
3737 N KINGSHIGHWAY
ST LOUIS 63115
RANKIN,DIANE, CHP
4521 PERSHING ST
ST LOUIS 63108
RAPPOLO,OTTD,HEINRICH, DBG
500 NORTHWEST PLAZA-APT 500
ST ANN 63074
RATCHESON,ROBT,ALLAN, NS
BARNES HDSP-OEPT NEUR-SURG
ST LOUIS 63110
RATKIN,GARY,ALAN, NO
100 N EUCLIO
ST LOUIS 63108
RAY,JEAN,L, FP
3535 SOUTH JEFFERSON
ST LOUIS 63118
RAYBUCK,HARRY,EARL, OBG
3533 RITZ CENTER
ST LOUIS 63125
RAZA,SYEO,AKHTAR, CHP
304 E 6TH ST RT 50
O'FALLON IL 62269
RAZEK,ALY,A, TR
C/O ST MARYS MEOICAL CENTER
RADIATION ONCOLOGY OEPT
EVANSVILLE IN 47750
RECAND,RICAROO,QUINTOS, GP
4440 WAZARETH HILLS OR
ST LOUIS 63129
REOOI,RAGHUNATH, TR
1325 S GRANO
ST LOUIS 63104
REESE,LESTER,THOS, O
522 N NEW BALLAS RO-STE 316
ST LOUIS 63141
REEVES,GLEN,IRVING, R
4511 FOREST PARK RM 311
ST LOUIS 63108
REH,THOS,EOWARO, R
6420 CLAYTON RD
ST LOUIS 63117
REICH,HARRY,A, GP
5100 TAMM AVE
ST LOUIS 63109
REICHERT-PASZKIEWICZ,M,C, IM
10063 ELISE DR
ST LOUIS 63123
REIOER,RICHARO,ARNOLD, IM
353 RUE RENER
ST LOUIS 63122
REINECK,JOHN,ALBERT, OM
5410 RHOOES
ST LOUIS 63109
REISLER,OAVID,MARTIN, N
456 N NEW BALLAS RO
ST LOUIS 63141
REJENT,ANTHONY,JAMES, PO
4211 BAYLESS RO
ST LOUIS 63123
RENDLEMAN,GEO,F, OS
812 OLIVE ST
ST LOUIS 63111
RENDLEMAN,GEO,F, GS
812 OLIVE ST
ST LOUIS 63101
REUTER,LOUIS,ANTHONY, OM
911 S BRENTWOOO BLVD
SUITE 100
ST LOUIS 63105
REVELEY,MICHAEL,AUGUST, P
4940 AUOUBON
ST LOUIS 63110
REYES,JOSE,TOLENTINO, AN
455 STEEPLE CHASE LANE
ST LOUIS 63131
REYES,LUIS,A, GS
9814 MAR-ANN CT
ST LOUIS 63128
REYES,ROSENDO,ALOAMA, GP
10157 HAUSFEL CT
ST LOUIS 63126
REYNOLDS,FREDERICK,C, ORS
4960 AUOUBON AVE
ST LOUIS 63110
RHEE,DONG,SHIK, AN
615 S NEW BALLAS RD
ST LOUIS 63141
RHEE,SEOUNG,EUN, GP
3555 RITZ CENTER
ST LOUIS 63125
RIBAUOO,J,MICHAEL, PS
777 S NEW BALLAS RO
ST LOUIS 63141
RICHARDS,FRANK,OLIVER, GS
3737 N KINGSHIGHWAY
ST LOUIS 63115

RICHMAN,ELMER, A
P O BOX 105
CHESTERFIELO 63017
RIOGEWAY,WM,GEO, OPH
6651 CHIPPEWA
ST LDUIS 63109
RIES,OOUGLAS,ALEXANOER, GS
8 PORTLANO DR
ST LOUIS 63131
RILEY,JOHN,J, IM
322 NORTHLAND MED BLOG
ST LOUIS 63136
RITCHIE,FRANCES,RANKIN, GP
720 DLIVE ST 24TH FLOOR
ST LOUIS 63101
RITTER,HUBERT,AUGUST, OBG
1035 BELLEVUE
RICHMONO HEIGHTS 63117
RITTER,PAUL,JOHN, OBG
1035 BELLEVUE
RICHMONO HEIGHTS 63117
RIZZO,AOOLFO,ENRIQUE, CHP
9216 CLAYTON RO STE 105-B
ST LOUIS 63124
ROARK,PAUL,MICHAEL, OPH
10000 HIGHWAY 366 SUITE R
ST LOUIS 63126
ROBBINS,PHILIP, CRS
621 S NEW BALLAS RO
ST LOUIS 63141
ROCHE,MAURICE,B, ORS
4440 LINOELL BLVO
ST LOUIS 63108
ROOEN,VERNON,JAMES, PO
456 N NEW BALLAS RD
ST LOUIS 63141
ROORIGO,BERNAROO,R, AN
6420 CLAYTON RO
ST LOUIS 63117
ROORIGUEZ,UBALOO,R, ABS
2650 TELEGRAPH RD
ST LOUIS 63125
RONGEY,KENNETH,ARVEN, AN
1325 S GRANO BLVO
ST LOUIS 63104
ROOS,ALBERT, AN
660 S EUCLID
ST LOUIS 63110
ROPER,CHAS,L, TS
BARNES HOSP PLAZA
ST LOUIS 63110
ROSECAN,MARVIN, IM
4910 FOREST PARK BLVO
ST LOUIS 63108
*ROSELL,LOUIS,V, GP
950 FRANCIS PL
ST LOUIS 63105
ROSEN,ROBT,STUART, OPH
4502 HILLVIEW DR
LA MESA CA 92041
ROSENBAUM,HARRY,D, OPH
522 N NEW BALLAS RO-APT 364
ST LOUIS 63141
ROSENBAUM,HERBERT,E, N
456 N NEW BALLAS #290
ST LOUIS 63141
ROSENBERG,OAVID,S, IM
1040 N MASON RO
ST LOUIS 63141
ROSENFELO,HENRY, IM
1209 BETHESOA
ST LOUIS 63117
ROSKIND,JOEL, HS
9965 AVIARY OR
SAN OIEGO CA 92131
ROSS,DENNIS,L, NEP
9058 AMONA
ST LOUIS 63123
ROTH,JOHN,JOS, IM
522 N NEW BALLAS-STE 243
ST LOUIS 63141
ROTHMAN,OAVID, GYN
2821 BALLAS RO STE 255
ST LOUIS 63131
ROTHWEILER,ROBT,JUOGE, OTO
11745 OLIVE ST RO
ST LOUIS 63141
ROTSKOFF,KENNETH,S, OS
911 S BRENTWOOO
ST LOUIS 63105
ROULHAC,GEO,E, NS
5505 OELMAR BLVO
ST LOUIS 63112
ROUSH,GEO, OM
600 N LINOBERGH
ST LOUIS 63166
ROY,JOS,AUGUST, GS
12255 OE PAUL DR SUITE 730
BRIDGETON 63044
ROYCE,ROBT,KILLIAN, U
766 HIGH HAMPTON RD
ST LOUIS 63124
ROYSTON,GRANOISON,O, OBG
RT #4 BOX 330H
HOPE AR 71801
RUOI,HERBERT,JOHN, GP
3606 GRAVOIS AVE
ST LOUIS 63116

RUEHL,ALBERT,FRANK, PS
1325 S GRANO
ST LOUIS 63104
RUSAN,THOS,EOWARO, OBG
2900 S BRENTWOOO
ST LOUIS 63144
RUSSELL,HERMAN,E, ORS
4451 NATURAL BRIOGE AVE
ST LOUIS 63115
RYAN,RDBT,EMMETT, OTO
621 S NEW BALLAS RO STE 537
ST LOUIS 63141
SACHAR,LEO,AARDN, GS
4511 FOREST PARK BLVD
ST LDUIS 63108
SAFDAR,SHABBIR,H, NO
1034 SOUTH BRENTWODD
ST LOUIS 63117
SAGHIR,MARCEL,TAWFIC, P
1034 S BRENTWOOO BLVO STE 1176
ST LOUIS 63117
SAHA,NITAI,CHANDRA, U
620 PACKFORO
BALLWIN 63011
SAIFEE,SALMA, OBG
4911 BARNES HOSPITAL PLAZA
ST LOUIS 63110
SAKAMOTO,OAN,K, OPH
1325 S GRANO BLVO
ST LOUIS 63104
SALANGA,PERCIVAL,BORJA, GP
8321 N BROAOWAY
ST LOUIS 63147
SALE,LLEWELLYN, IM
4910 FOREST PARK
ST LOUIS 63108
SALINAS,MARIO, OBG
1325 S GRAND
ST LOUIS 63104
SALMON,MICKEY,LEON, OPH
3916 RITZ CTR
ST LOUIS 63125
SAMET,JOHN, IM
950 FRANCIS PL
ST LOUIS 63105
SAMMONS,HARRY,CAMPBELL, AN
128 W JEWEL AVE
KIRKWOOO 63122
SAMUORALA,RAMULU, OPH
2601 N WHITTIER
ST LOUIS 63139
SANCHEZ,ABELARDO,B, N
4783 WICKERWOOO OR
ST LOUIS 63129
SANDERS,THEODORE,E, OPH
100 N EUCLIO
ST LOUIS 63108
SANOZA,JOSEPH,G, GS
216 S KINGSHIGHWAY
ST LOUIS 63110
SANTANELLO,WILLIAM,M, GP
2525 N BROAOWAY
ST LOUIS 63102
SAPALA,JOSEPH,C, FOP
601 S BRENTWOOO
ST LOUIS 63105
SASSER,WM,FREEMAN, TS
621 S NEW BALLAS RO
ST LOUIS 63141
SATO,GEO, PO
369 HALCYDN DRIVE
ST LOUIS 63122
SAUER,OONALO,CARL, GS
4422 WESTMINSTER
ST LOUIS 63108
SAUER,W,NICHOLAS, OTO
OXFORO BUILOING 141 NORTH
MERAMEC SUITE 218
ST LOUIS 63105
SAUVAGE,JACQUES,P, OBG
4911 BARNES HOSP PLAZA
ST LOUIS 63110
SAVCI,OOGAN,HASAN, R
11712 WESTHAM
ST LOUIS 63131
SAWYER,JAMES, OBG
111 CHURCH ST
FERGUSON 63135
SCHAAN,ROBT,C, PD
6651 CHIPPEWA STE 316
ST LOUIS 63109
SCHAEFER,GLENNON,S, GS
1333 TOPPING ROAO
ST LOUIS 63131
SCHAPER,ERNEST,H, OM
7200 MANCHESTER AVE
ST LOUIS 63117
SCHEER,GEORGE,E, ORS
UNIVERSITY CLUB TOWERS BLDG
1034 SOUTH BRENTWOOO
ST LOUIS 63117
SCHEFF,HAROLD, GE
777 S NEW BALLAS RO
ST LOUIS 63141
SCHEIBE,ROBT,GRAHAM, U
777 SO NEW BALLAS RO
ST LOUIS 63141

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* Doctor of Osteopathy.

SCHEIBLE,ROBERT,F, R
2821 N BALLAS RD
ST LOUIS 63131
SCHENGBER,JOHN,STEPHAN, P
1221 S GRAND BLVD
ST LOUIS 63104
SCHIERMAN,WM,D, IM
911 S BRENTWOOD BLVD
CLAYTON 63105
SCHMIDT,DENNIS,ALDON, R
6150 OAKLAND
ST LOUIS 63139
SCHMIDT,EDWIN,H, P
6651 CHIPPEWA ST
ST LOUIS 63109
SCHMIEMEIER,ROY,H, GP
10220 SCHUESSLER RD
ST LOUIS 63126
SCHOBER,CHAS,C, P
4524 FOREST PARK
ST LOUIS 63108
SCHOECK,ALBERT,F, AN
44 MUIR FIELD
CREVE COEUR 63141
SCHOEDINGER,GEORGE,R, ORS
324 WEST JACKSON RD
WEBSTER GROVES 63119
SCHONFELD,GUSTAV, IM
507 S EUCLID
ST LOUIS 63110
SCHRANCK,CHAS,RAYMOND, AN
26 BERKSHIRE
ST LOUIS 63117
SCHUESSLER,WOLFGANG,P, IM
6744 CLAYTON RD
ST LOUIS 63117
SCHULMAN,JEFFREY, PDA
522 N NEW BALLAS RD
ST LOUIS 63141
SCHULTZ,IRWIN, IM
26 ARUNDEL PL
ST LOUIS 63105
SCHULZ,RICHARD, R
6150 OAKLAND
ST LOUIS 63139
SCHWARTZ,HENRY,G, NS
600 S KINGSHIGHWAY
ST LOUIS 63110
SCHWEISS,JOHN,FRANCIS, AN
1414 WEST WIND
ST LOUIS 63131
SCIORTINO,GASPARE, IM
550 COEUR DEROYALE DR
ST LOUIS 63141
SCIORTINO,JOHN,S, GS
3654 S GRAND BLVD-STE 207
ST LOUIS 63118
SCOPELITE,JOS,ALOYSIUS, GP
607 N GRAND BLVD
ST LOUIS 63103
SCOTT,ELWIN,POWERS, GP
3325 S GRAND
ST LOUIS 63116
SCOTT,HORACE,WENDELL, R
2639 MIAMI
ST LOUIS 63118
SEED,JOHN, P
11 S MERAMEC
ST LOUIS 63105
SEELEY,JAMES,J, GS
6651 CHIPPEWA
ST LOUIS 63109
SEIB,GEO,ARTHUR, GP
2323 LAFAYETTE AVE
ST LOUIS 63104
SENTURIA,BEN,H, OTO
4949 FOREST PARK
ST LOUIS 63108
SENTURIA,HYMAN,R, R
4511 FOREST PARK AVE
ST LOUIS 63108
SERTL,GEORGE,D, ORS
777 S NEW BALLAS RD
ST LOUIS 63141
SERTL,JAMES,FRANCIS, IM
950 FRANCIS PL
ST LOUIS 63105
SERTL,JOHN,DAVID, GP
3739 GRAVOIS AVE
ST LOUIS 63116
SESSIONS,DONALD,GORDON, HNS
4989 BARNES HOSPITAL PLAZA
ST LOUIS 63110
SETHABUTRA,CHAISIRI, OPH
963 PROSPECT
OLEAN NY 14760
SETHABUTRA,YOLVILAI, PD
963 PROSPECT
OLEAN NY 14760
SEVASTIANOS,ARISTIDES,E, GP
7521 W FLORISSANT AVE
ST LOUIS 63136
SEXTON,DANL,L, IM
911 S BRENTWOOD BLVD
CLAYTON 63105
SEXTON,ELMER,EDWIN, U
2537 TOWN & COUNTRY LANE
ST LOUIS 63131
SHAH,ANWAR, OPH
1035 BELLEVUE AVE
ST LOUIS 63117
SHAH,BHARAT,KANTILAL, GS
221 BROOKTRAIL CT
ST LOUIS 63141
SHAH,HANSA,J, PTH
148 AMBLESIDE LA
ST LOUIS 63141
SHAH,JITENDRA, U
6500 CHIPPEWA
ST LOUIS 63109
SHAH,NAHEED,F, OPH
1325 S GRAND BLVD
ST LOUIS 63104
SHAHAN,PHILIP,TRUMAN, OPH
211 N MERAMEC
ST LOUIS 63105
SHANAHAN,PHILIP,JACOB, GP
1 CHILTON LN
CREVE COEUR 63141
SHANER,THOS,PATRICK, OBG
2821 NORTH BALLAS
ST LOUIS 63131
SHANK,ROBT,ELY, NTR
4566 SCOTT AVE
ST LOUIS 63110
SHAPIRO,HERBERT,NORMAN, GS
6651 CHIPPEWA ST
ST LOUIS 63109
SHAPLEIGH,JOHN,B, HEM
1034 S BRENTWOOD BLVD STE 958
ST LOUIS 63117
SHARP,AUSTIN,R, PD
901 CLAYTON RD
BALLWIN 63011
SHAW,EDWARD,JAMES, GS
3654 SOUTH GRAND BLVD
ST LOUIS 63118
SHAW,RICHARD,C, TS
216 S KINGSHIGHWAY
ST LOUIS 63110
SHELTON,EARL,WILSON, IM
4451 NATURAL BRIDGE AVE
ST LOUIS 63115
SHEN,JEROME,T Y, PD
1695 S BRENTWOOD BLVD
ST LOUIS 63144
SHERIDAN,EDMUND,REID, GP
1755 S GRAND AVE
ST LOUIS 63104
SHERIDAN,JOHN,J, ORS
6651 CHIPPEWA
ST LOUIS 63109
SHERWIN,CHAS,STEELMAN, GS
3971 FLORA PL
ST LOUIS 63110
SHIEBER,WM, GS
216 S KINGSHIGHWAY BLVD
ST LOUIS 63110
SHIELDS,JOHN,BENEDICT, R
33 FLOWER HILL CT
ST LOUIS 63122
SHINTAKU,MICKEY,REN, ORS
11574 IOWA AVE
LOS ANGELES CA 90025
SHUFF,PAUL,DAVID, OTO
1035 BELLVUE STE 417
ST LOUIS 63117
SHUMAN,JOS,SCOTT, P
DE PAUL MEDICAL BLDG
12255 DE PAUL DR SUITE 440
BRIDGETON 63044
SHYKEN,HERMAN, R
141 N MERAMEC
CLAYTON 63105
SIDDIQUI,FARZANNA,Q, P
1550 A ST CLAIR AVE
GRANITE CITY IL 62040
SIEMERS,GEO,E, OBG
12660 LAMPLIGHTER SQUARE
ST LOUIS 63128
SIESENER,HERBERT,H, IM
NORTHLAND MED BLDG STE 206
ST LOUIS 63136
SIGMUND,CHAS,ALAN, OPH
12255 DE PAUL RD
SUITE 645
BRIDGETON 63044
SIGNORELLI,ANDREW,J,
12634 OLIVE ST RD
ST LOUIS 63141
SILVA,VICTOR,AUGUSTO, PTH
AV LOS PINOS #39
LAFLORIDA CARACAS 105
VENEZUELA F0935
SILVERMINTZ,SAUL,DON, IM
20 GRANADA WAY
ST LOUIS 63124
SIMON,DAVID,L, PD
7809 GANNON
ST LOUIS 63130
SIMON,JEROME,IREALS, GS
12 WESTRIDGE CT
ST LOUIS 63124
SIMON,NATHAN,MAX, PYA
32 CRESTWOOD
ST LOUIS 63105
SIMOWITZ,FREDRIC,MALCOLM, N
2821 N BALLAS RD
ST LOUIS 63131
SIMS,WM,AUBREY, AN
6 GREENBRIAR LANE
ST LOUIS 63124
SINGHAL,GOKUL,C, IM
6500 CHIPPEWA AVE
ST LOUIS 63109
SINGHAL,RENU, PD
4524 TARLTON DR
ST LOUIS 63126
SINSAKUL,VICHIEN, NEP
1325 S GRAND BLVD
ST LOUIS 63104
SISLEN,DONALD,RAY, IM
621 S NEW BALLAS ROAD
ST LOUIS 63141
SISSON,RICHARD,GEO, GS
4511 FOREST PARK BLVD
ST LOUIS 63108
SKEFFINGTON,MARY,JANE, OPH
CLAYTON HOUSE RETIREMENT CTR
1251 E CLAYTON RD
MANCHESTER 63011
SKIMMING,W,LEE, ORS
9550 OLD BONHOMME
ST LOUIS 63132
SLAVIN,RAYMOND,G, A
1402 SOUTH GRAND
ST LOUIS 63104
SLETTEN,IVAN,WAYNE, P
11155 DUNN RD
ST LOUIS 63136
SLY,WM,SHUFORD, OS
500 S KINGSHIGHWAY BLVD
ST LOUIS 63110
SMILEY,WM,L, OBG
2715 UNION BLVD
ST LOUIS 63113
SMITH,BENJ,FRANKLIN, OBG
5 FORDYCE MANOR
ST LOUIS 63131
SMITH,DERMOTT,A P, P
1221 S GRAND BLVD
ST LOUIS 63104
SMITH,EMILY,LOUISE, DR
510 S KINGS HIGHWAY
ST LOUIS 63110
SMITH,GARLAND,F, ORS
621 S NEW BALLAS RD
ST LOUIS 63141
SMITH,HERBERT,P, GP
2265 FLORIDA MANGO RD
WEST PALM BEACH FL 33406
SMITH,HUGH,REINHARDT, OBG
6651 CHIPPEWA
ST LOUIS 63109
SMITH,JAMES,BERT, P
35 NORTH CENTRAL
ST LOUIS 63105
SMITH,JOHN,EARL, PH
4336 FOREST DE VILLE
ST LOUIS 63129
SMITH,KATHLEEN, P
1420 GRATTAN ST
ST LOUIS 63104
SMITH,KENNETH,RUPERT, NS
1325 S GRAND BLVD
ST LOUIS 63104
SMITH,MORTON,EDWARD, OPH
660 S EUCLID ST
ST LOUIS 63110
SMITH,NORRIS,WETHERILL, OBG
3654 S GRAND BLVD
ST LOUIS 63118
SMITH,ROBT,WALLACE, R
10010 KENNERLY RD
ST LOUIS 63128
SMITH,SIDNEY,ELMER, IM
2715 UNION ST
ST LOUIS 63113
SOBKY,GEORGE, R
13493 BEAULAC
CREVE COEUR 63141
SOHN,RICHARD, N
4989 BARNES HOSPITAL PLAZA
ST LOUIS 63110
SOLLEY,ROBT,FOLGER, IM
8 MALLARD DR
OLD SAYBROOK CT 06475
SOMBUN,TIROKIAT, OBG
1033 RUE LA CHELLE WALK
ST LOUIS 63141
SOMMER,CONRAD,SAML, P
7777 BONHOMME STE 1903
ST LOUIS 63105
SOORYA,NARENDIR,TOLARAM, CHP
6651 CHIPPEWA
ST LOUIS 63109
SOPORI,UMA,DEVI, PTH
7424 E BERRIDGE LANE
SCOTTSDALE AZ 85253
SOPUCH,JOHN,AUGUSTINE, OBG
500 NORTHWEST PLAZA
ST ANN 63074

SOULE,SAML,DAVID, OBG
911 S BRENTWOOD
ST LOUIS 63105
SPALDING,DONALD,GUY, R
621 S NEW BALLAS RD
ST LOUIS 63141
SPANGLER,ROBERT,T, GS
316 NORTHRIDGE NW
CANTON OH 44720
SPECTOR,GERSHON, OTO
517 SOUTH EUCLID
ST LOUIS 63110
SPINZIG,EDGAR,WALTER, R
5 HAWBROOK LANE
KIRKWOOD 63122
SPOENEMANN,WALTER,H, GP
3514 LONGFELLOW
ST LOUIS 63104
SQUITIERI,ALPHONSE,J, IM
9616 LACKLAND AVE
ST LOUIS 63114
SRIKRISHNA,SIRIVELLA, GS
3015 N BALLAS RD
ST LOUIS 63131
RIVISAL,SOMNUK, R
1877 SCHOETTLER VALLEY DR
CHESTERFIELD 63017
T JOHN,THOMAS,C, OM
10017 CHARDINWAY
APT 2
ST LOUIS 63128
TAFFORD,WALTER,ROBT, OPH
141 N MERAMEC AVE
CLAYTON 63105
TANCZYK,DENNIS,J, GS
1325 S GRAND BLVD
ST LOUIS 63104
TANFIELD,NED,M, AN
8048 BLACKBERRY AVE
UNIVERSITY CITY 63130
TANLEY,ROBT,JOS, R
510 S KINGSHIGHWAY
ST LOUIS 63110
TARKLOFF,GENE,B, GS
3660 VISTA
ST LOUIS 63110
TARKLOFF,MAX, IM
6304 S GRAND AVE
ST LOUIS 63111
TEELE,JACK,TAYLOR, GP
3466 BRIDGELAND
SUITE 110
BRIDGETON 63044
TEIN,ARTHUR,H,
4989 BARNES HOSP PLAZA
ST LOUIS 63110
TEIN,PAUL,M, NEP
777 SOUTH NEW BALLAS RD
ST LOUIS 63141
TEINBERG,FRANZ,U, PM
216 SOUTH KINGSHIGHWAY BLVD
ST LOUIS 63110
TEPHEN,CHAS,RONALD, AN
UNIV OF WASH SCH MED
ST LOUIS 63110
TEPHENS,LE,ROY JULES, PD
7937 BIG BEND BLVD
WEBSTER GROVES 63119
TERGEN,NICK,EMMANUEL, OBG
5647 BERMUDA DR
ST LOUIS 63121
TERKEL,RICHARD,L, GE
1035 BELLEVUE
ST LOUIS 63117
TESKA,STEPHEN,J, EM
6504 HOFFMANN
ST LOUIS 63139
TICKLEY,LOUIS,PETER, CO
621 S NEW BALLAS RD
ST LOUIS 63141
ILLINGS,WAYNE, P
410 N NEWSTEAD APT 11E
ST LOUIS 63108
INDEL,CHAS,ERNST, OM
341 VIOLET LANE
ST LOUIS 63119
TOKES,JAMES,MELVIN, GS
5505 DELMAR BLVD
ST LOUIS 63112
TONEMAN,WM, PS
5217 WESTMINSTER PL
ST LOUIS 63108
TRADER,RICHARD,PAUL, AN
621 SOUTH NEW BALLAS RD
ST LOUIS 63141
ROBACH,KURT,FRANCIS A, OBG
3394 MC KELVEY ROAD
BRIDGETON 63044
ROMINGER,DONALD,B, POA
4989 BARNES HOSP PLAZA-5106
ST LOUIS 63110
RONSKY,DAVID, ORS
12166 BIG BEND BLVD
ST LOUIS 63122
ROUD,MALCOLM,HERBERT, OTO
517 SOUTH EUCLID
ST LOUIS 63110

STRYKER,GAROLD,VERNON, OS
#1 GULF MANOR DR
VENICE FL 33595
STRYKER,WM,I, P
12 OAKLEIGH LANE
ST LOUIS 63124
SUBA,ANTONIO,RONQUILLO, GS
141 N MERRAMEC AVE
ST LOUIS 63105
SUDEKUM,ANN, PD
2621 N BALLAS
ST LOUIS 63131
SUDEKUM,JOSEPH,M, ORS
12077 LAKE PLACID
ST LOUIS 63141
SUDHOLT,ALFRED,F, OBG
500 NORTHWEST PLAZA STE 524
ST ANN 63074
SULLIVAN,CLEMENT,JOS, A
6744 CLAYTON RD RM 311
ST LOUIS 63117
SUMMERS,JOHN,B, PO
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109
SUMMERS,THOS,FERN, GP
#100 N EUCLID
P O BOX 23053
ST LOUIS 63156
SUNDERMAN,RAYMOND,C, GER
1600 MONTICELLO DR
ST LOUIS 63138
SUNSHINE,HERBERT, U
707 WAYFIELD
ST LOUIS 63132
SUSMAN,NOAH, R
4511 FOREST PARK AVE
ST LOUIS 63108
SVANCAREK,WM,PETER, GS
11133 DUNN RD
FLORISSANT 63033
SWAYKUS,BERNARD,THOMAS, IM
3394 MC KELVEY RD
BRIDGETON 63044
SWEET,HERBERT,C, PUD
3 ST JAMES COURT
WEBSTER GROVES 63119
SWOPE,JOS,ALBERT, IM
10004 KENNERLY
ST LOUIS 63128
SYLVANOVICH,W,RICHARD, GE
ST JOHNS MERCY MED CTR
615 SOUTH NEW BALLAS RD
ST LOUIS 63141
TANAKA,GEO,M, IM
59 GRASSO PLAZA
ST LOUIS 63123
TAPPER,STEVEN, U
1301 KENDON DR
ST LOUIS 63131
TATKOW,ROBERT,W, ORS
4919 FOREST PARK AVE
ST LOUIS 63108
TAUSSIG,BARRETT,L, IM
513 PAMELA LANE
ST LOUIS 63122
TAUTE,HERMANN, OBG
2821 N BALLAS RD
ST LOUIS 63131
TAVASSOLI,FATTANEH,A Z, PTH
C/O OB-GYN BREAST PATHOLOGY
A F I P
WASHINGTON DC 20305
TAYLOR,EUGENE,DONALDSON, OBG
2715 N UNION
ST LOUIS 63113
TAYOB,ANVER,A, ORS
1465 S GRAND BLVD
ST LOUIS 63104
TEKWANI,HIRALAL,T, OPH
3555 SUNSET OFFICE DR
ST LOUIS 63127
TEMPORAL,ADELAIDE, IM
10048 HILLTOP DR
ST LOUIS 63128
TEMPORAL,JOSE,A, EM
12660 LAMPLIGHTER SQ
ST LOUIS 63126
TEPPER,ARNOLD, IM
777 S NEW BALLAS RD
ST LOUIS 63141
TERNBERG,JESSIE,LAMOIN, GS
4960 AUDUBON AVE
ST LOUIS 63110
TESS,ALLEN,FRED, OPH
1245 GRAHMA RD STE 411
FLORISSANT 63031
TESS,MELVIN,J H, PH
1501 SWITZER AVE
ST LOUIS 63147
THALE,THOS,RICHARD, P
1221 S GRAND
ST LOUIS 63104
THAWLEY,STANLEY, OTO
BARNES HOSPITAL PLAZA
ST LOUIS 63110
THIEL,JOHN,ALLEN, A
621 SOUTH NEW BALLAS RD
ST LOUIS 63141

THIERAUF,CHAS,GEO, R
9444 SUNNY CREEK
ST LOUIS 63127
THOMA,GEO,EDWARD, IM
3556 CAROLINE
ST LOUIS 63104
THOMAS,GRACY, R
2601 WHITTIER
ST LOUIS 63113
THOMAS,LEWIS,JONES, AN
700 S EUCLID ST-BIO COMP LAB
ST LOUIS 63110
THOMASSON,MARY,W, R
525 ST FRANCOIS PLACE
FLORISSANT 63031
THOMPSON,MERLYN,BRYANT, OBG
522 N NEW BALLAS RD
ST LOUIS 63141
THURMANN,MANFRED, CO
950 ST FRANCIS PL
ST LOUIS 63105
THURSTON,DONALD,L, PD
500 SO KINGSHIGHWAY
ST LOUIS 63110
THYM,HENRY,PAUL, GS
436 CORONADO DR
BALLWIN 63011
TICHENOR,ROBT,WOODROW, GP
BOX 8568 SAPPINGTON STA
ST LOUIS 63126
TILLMAN,MARY,ANNE TUGGLE, PD
4511 FOREST PARK
SUITE 201
ST LOUIS 63108
TINDALL,ROBT,NELSON, OTO
6651 CHIPPEWA ST RM 306
ST LOUIS 63109
TIPPETT,JACK,C, ORS
6651 CHIPPEWA ST
ST LOUIS 63109
TJOFLAT,OLIVER,EUGENE, GP
252 WOODBOURNE DR
ST LOUIS 63105
TONELLI,GEO,LOUIS, OTO
5723 NEOSHO
ST LOUIS 63109
TOOMEY,JAMES,M, PS
517 S EUCLID
ST LOUIS 63110
TORO,ENRIQUE,FELIX, HEM
3555 SUNSET OFFICE DR
ST LOUIS 63127
TRIGG,JOSEPH,F, GP
OCEAN REEF CLUB
13 CALDOSA RD
KEY LARGO FL 33037
TRISKA,ROLAND,ANTHONY, PD
12166 BIG BEND BLVD
KIRKWOOD 63122
TROTTA,PHILIP,C, R
4511 FOREST PARK BLVD
ST LOUIS 63108
TRUETER,FRANCIS,O, R
6150 OAKLAND
ST LOUIS 63139
TRUGLY,EDITH,SUZANNA, P
12 HACIENDA DR
ST LOUIS 63124
TSCHANG,TAI-PO, PTH
4890 TEAKWOOD
BEAUMONT TX 77706
TUANO,ANGELO, GS
2601 N WHITTIER
ST LOUIS 63113
TUCKER,EUGENE,F M, PTH
6420 CLAYTON RD
ST LOUIS 63117
TUCKER,GEO,LEON, GS
4989 BARNES HOSP PLAZA 6107
ST LOUIS 63110
TUMIALAN,LUIS, PTH
2639 MIAMI ST
ST LOUIS 63110
TURGEON,RONALD,PAUL, PTH
6420 CLAYTON RD
ST LOUIS 63117
TURNG,SHU,YING, PD
2601 N WHITTIER
ST LOUIS 63113
TWEDELL,DONALD,LOUIS, OM
7544 W FLORISSANT
ST LOUIS 63136
TYRRELL,TERRENCE,ANDREW, R
DEPT OF RADIOLOGY USAF MED CTR
WRIGHT-PATTERON
AIR MATERIEL COMM OH 45433
UHLEMEYER,HENRY,A, OTO
5203 CHIPPEWA ST
ST LOUIS 63109
ULETT,GEO,ANDREW, P
500 SUSAN RD
ST LOUIS 63129
UMAR,IBRAHIM,S, R
1515 LAFAYETTE AVE
ST LOUIS 63104
UNGVARI,JOS,CHAS, ABS
6500 CHIPPEWA STE 107
ST LOUIS 63109

UPADHYAYA,D,M, OBG
1115 A GRAHAM ST
ST LOUIS 63139
UTLEY,JAMES, IM
3737 N KINGSHIGHWAY BLVD
ST LOUIS 63115
VACCA,JOS,BRANER ANTHONY, IM
3915 WATSON RD
ST LOUIS 63109
VADLAMANI,S, GS
6150 OAKLAND AVE
ST LOUIS 63139
VALDES,ORESTES,S, PO
1526 BOOKBINDER DR
ST LOUIS 63141
VALKO,ROBERT,J, GP
1245 GRAHAM RD
SUITE 301
FLORISSANT 63031
VALTIERRA,CESAR,ANTONIO, P
6744 CLAYTON RD
ST LOUIS 63117
VAN GOIDSENHOVEN,GUY,E, GE
1035 BELLVUE
ST LOUIS 63117
VAN MATRE,REBER,M, P
1436 SHERIDAN ST NW
WASHINGTON DC 20011
VAN NORMAN,ROBT,T, PS
6651 CHIPPEWA
ST LOUIS 63109
VANDOVER,JOHN,T, GP
3 GRANTWOOD LANE
ST LOUIS 63123
VARDELEON,ROGELIO,VALCOS, GS
327 CONWAY LAKE DR
ST LOUIS 63141
VILLARAMA,LILIA,F, PO
917 GLEN MILL RD
MANCHESTER 63011
VILORIA,ALBERTO,B, GS
2425 N BROADWAY
ST LOUIS 63102
VIRANT,JOHN,ALOYSIUS, OTO
119 SPOEDE RD
ST LOUIS 63141
VITT,EDWIN,FISCHER, GS
16 HAMPTON VILLAGE
ST LOUIS 63109
VIVIANO,JOS,GHIO, OBG
16 HAMPTON VILLAGE
ST LOUIS 63109
VOURNAS,CHRISTOPHER,G, IM
12255 DE PAUL DR SUITE 865
BRIDGETON 63044
WACKER,LEO,LEE, GP
3563 RITZ CENTER DR
ST LOUIS 63125
WAGNER,JOHN,RAYMOND, ORS
777 S NEW BALLAS RD
ST LOUIS 63141
WALD,STANLEY,MARVIN, IM
4511 FOREST PARK BLVD
ST LOUIS 63108
WALKER,J,LESLIE, OBG
522 N NEW BALLAS RD
CREVE COEUR 63141
WALL,EMMETT,O, IM
5823 NOESHO
ST LOUIS 63109
WALL,LESTER,EVANS, POA
12166 BIG BEND BLVD
KIRKWOOD 63122
WALLACK,MARC,K, GS
4960 AUDUBON AVE
ST LOUIS 63110
WALSH,JAMES,WM, IM
1034 S BRENTWOOD BLVD
ST LOUIS 63117
WALTER,KENNETH,EUGENE, CO
9188 RUSTICWOOD TRAIL
ST LOUIS 63126
WALTERS,HAROLD,E, OM
6828 OAKLAND
ST LOUIS 63139
WALTMAN,STEPHEN,REEVES, OPH
342 MAGNA CARTA DR
ST LOUIS 63141
WALTON,FRANKLIN,E, GS
25 CLERMONT LANE
ST LOUIS 63124
WALZ,BRUCE,JAMES, TR
510 S KINGSHIGHWAY BLVD
ST LOUIS 63110

VARGAS,TEODORO, FP
319 N FIRST ST
PACIFIC 63069

VAUGHAN,J,RUSSELL, OBG
940 GOLF COURSE DR
ST LOUIS 63132

VAUGHN,LEROY,WM, OPH
6214 1/2 NITA AVE
WOODLAND HILLS CA 91367

VELASCO,ERNESTO,TOPACIO, GP
1704 S BROADWAY
ST LOUIS 63104

VELUZ,BENITO,ISAAC, IM
6500 CHIPPEWA
ST LOUIS 63109
VERDE,JULIAN,NICHOLAS, R
9806 MEADOWFERN DR
ST LOUIS 63126
VEROLA,NICHOLAS,W, OPH
1325 SOUTH GRAND
ST LOUIS 63104
VERSACKAS,M,J, OPH
1212 PLEASANT ST
DES MOINES IA 50309
VEST,JAMES,C, TS
12255 DE PAUL DR STE 150
ST LOUIS 63144
VIAMONTES,GLORIA,E, CHP
1360 SOUTH 5TH ST SUITE 270
ST CHARLES 63301
VIANZON,ELIZABETH,ROMERO, OBG
14356 RAINY LAKE DR
CHESTERFIELD 63017
VIDHEECHAROEN,SOMBOON, GS
1225 GRAHAM RD
FLORISSANT 63031
VIJUNGCO,HERMINIA,D, AN
115 LADUE LAKE DR
CREVE COEUR 63141
VILLAFUERTE,NILA,A, AN
1116 CANTINA DRIVE
ST LOUIS 63141
VILLAFUERTE,RENATO,G, PTH
1116 CANTINA DR
ST LOUIS 63141
VILLAMAR,ELIZABETH,N, OBG
8673 OLD TOWNE DR
ST LOUIS 63132
VILLARAMA,ANTONIO,P, GS
917 GLENMILL DR
MANCHESTER 63011
WARREN,JAMES,CALDWELL, OBG
4911 BARNES HOSP
ST LOUIS 63110
WASHINGTON,WALTER, GS
3400 N KINGSHIGHWAY BLVD
ST LOUIS 63115
WASSERMAN,HELMAN,C, OBG
911 S BRENTWOOD BLVD
ST LOUIS 63105
WATERS,HUGH,ROBT, IM
5505 DELMAR BLVD SUITE 205
ST LOUIS 63112
WATKINS,GAREY,LYNN, OPH
2715 UNION BLVD
ST LOUIS 63113
WAYNE,SHERWYN,J, ORS
12166 BIG BEND RD
ST LOUIS 63122
WEBB,MARION,ARTEMUS, OTO
7744 MOHAWK PL
CLAYTON 63105
WEBB,PAUL,B, OPH
6651 CHIPPEWA ST
ST LOUIS 63109
WEBBER,WM,BISHOP, PS
1035 BELLEVUE AVE
ST LOUIS 63117
WEBER,J,RUSSELL, ORS
12166 BIG BEND RD
ST LOUIS 63122
WEEKS,PAUL,MARTIN, PS
4960 AUDUBON AVE
ST LOUIS 63110
WEILER,THOS,JOS, GS
615 SOUTH NEW BALLAS RD
ST LOUIS 63141
WEIR,DON,CLAIR, R
625 SHERWOOD DR
ST LOUIS 63119
WEIR,ROYAL,A, GS
1012 CLA TER RI DR
BALLWIN 63011
WEIS,LANDY, PTH
4509 PERSHING PL
ST LOUIS 63108

WEISS,HOWARD, N
141 N MERAMEC AVE
ST LOUIS 63105

WEISS,STUART, N
4989 BARNES HOSP PLAZA
ST LOUIS 63110

WELDON,CLARENCE,SCHOCK, TS
SUITE 3108 QUEENY TOWER
4989 BARNES HOSP PLAZA
ST LOUIS 63110

WELDON,VIRGINIA,V, END
500 S KINGSHIGHWAY
ST LOUIS 63110

WELSH,LAURENCE,CHAS, GP
1930 UNION RD
ST LOUIS 63125

WENTZEL,LOUIS,ROBT, GP
8900 HALLS FERRY RD
ST LOUIS 63147

WERNER,WM,ALBERT, IM
6651 CHIPPEWA
ST LOUIS 63109

WESTERMAN,ROBT,NEIL, GS
1035 BELLEVUE AVE
ST LOUIS 63117
WEYERICH,LEON,F, GP
152 LINDEN AVE
CLAYTON 63105
WEYGANDT,GLENN,R, AN
10322 OXFORD HILL DR
ST LOUIS 63141
WHITE,WM,HENRY, OBG
950 FRANCIS PL STE 219
CLAYTON 63105
WHITTICO,JAMES,M, GS
2715 UNION BLVD
ST LOUIS 63113
WICHIENKUER,PEIRUCH, IM
4080 PAULE AVE
ST LOUIS 63125
WIEGAND,HERBERT,CHAS, HEM
4989 BARNES PLAZA STE 3102
ST LOUIS 63110
WIENKE,EUGENE,C, PTH
2821 N BALLAS RD
ST LOUIS 63131
WILBOIS,RONALD,PETER, OBG
2821 N BALLAS RD
ST LOUIS 63131
WILKINSON,DAVID, NS
10007 KENNERLY RD
ST LOUIS 63128
WILLIAMS,CAROL,FRANCES, GYN
1034 S BRENTWOOD BLVD STE 946
ST LOUIS 63117
WILLIAMS,RAY,DAVID, IM
114 N TAYLOR AVE
ST LOUIS 63108
WILLIAMS,ROY,JEROME, IM
3409 N UNION
ST LOUIS 63115
WILLIAMS,WALTER,RICHARD, GS
28 BRIARWOOD DR
HILLSBORO IL 62049
WILLIAMSON,WALTER,E, OM
4521 TOWER GROVE PL
ST LOUIS 63110
WILLIS,H,ROBERT, GS
445 N GEYER RD
ST LOUIS 63122
WILLMAN,MARTIN,LEE, OTO
2860 W CLAY
ST CHARLES 63301
WILLMAN,VALLEE,L, TS
1325 S GRAND AVE
ST LOUIS 63104
WILSON,KEITH,SINGLETON, IM
141 N MERAMEC STE 202
CLAYTON 63105
WILSON,SUSAN,LEE, AN
400 N 4TH APT 2601
ST LOUIS 63102
WILUCKI,MELVIN,RAYMOND, GP
8916 GRAVOIS AVE
ST LOUIS 63123
WIMMER,WARREN,JOHN, PO
3220 PARKER RD
FLORISSANT 63033
WINDSOR,CHAS,EDWARD, OPH
777 S NEW BALLAS RD
ST LOUIS 63141
WINER,MICHAEL,HOWARD, ORS
522 N NEW BALLAS RD
ST LOUIS 63141
WINTER,JOHN,HENRY, IM
3394 MC KEVEY RD
BRIDGETON 63044
WINTER,TYRUS,DOMINIC, OBG
100 N EUCLID
ST LOUIS 63108

WINTERS,KATHLEEN, PO
4511 FOREST PARK BLVD
ST LOUIS 63108

WISSNER,SETH,ERNST, OBG
16 HAMPTON VILLAGE
ST LOUIS 63109

WITHROW,DONALD, PTH
11636 ADMINISTRATION DR
ST LOUIS 63141

WITT,CLYDE,MAX, R
2821 N BALLAS RD
ST LOUIS 63131

WITT,FRED,W, P
FORT SANDERS PRES HOSP
PROF BLDG
KNOXVILLE TN 37916

WITTGEN,EDWARD,M, ORS
6651 CHIPPEWA ST
ST LOUIS 63109
WOCHNER,RAYMOND,DEAN,
8121 PERSHING
ST LOUIS 63105
WOLF,MITCHELL,LEON, OPH
216 S KINGSHIGHWAY
ST LOUIS 63110
WOLFF,GERALD,ALLAN, IM
4989 BARNES HOSP PLZ STE 4103
ST LOUIS 63110

WOLFGRAM,EDWIN,DALE, P
4500 W PINE BLVD
ST LOUIS 63108
WODD,BENNETT,RAYMOND, GP
3442 GERALDINE
ST LOUIS 63115
WDOLSEY,JOYCE,E DEVINE, CHN
1034 S BRENTWOOD
ST LOUIS 63117
WOOLSEY,ROBT,MICHAEL, N
1325 S GRAND BLVD
ST LOUIS 63104
WDTAWA,WM,J, OBG
3804 WILMINGTON AVE
ST LOUIS 63116
WRAY,ROBT,CHRISTIE, PS
4960 AUDUBON
ST LOUIS 63110
WURR,DIETER,H, GP
ARNOLD MED CTR BOX 99
ARNOLD 63010
XYNOS,FRANCIS, OBG
1325 S GRAND
ST LOUIS 63104
YANNAKAKIS,JOHN,ELIAS, OBG
1245 GRAHAM
FLORISSANT 63031
YATES,OARREL,WAYNE, R
2821 N BALLAS RD
ST LOUIS 63131
YIN,PO-CHIN,H, PDC
P O BOX 892
HURST TX 76053
YLAGAN,AMANOO, GS
6630 CLAYTON RD
ST LOUIS 63117
YORE,RICHARD,WM, TS
1034 S BRENTWOOD BLVD STE 958
ST LOUIS 63117
YDSELEVSKY,ROBERT, IM
10 TAYLOR WOODS
ST LOUIS 63122
YDUNGE,WALTER,A, IM
501 MADISON
LOVEJOY IL 62059
YDUNGER,ANITA,C, GP
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109
YDUNGER,ERNEST, GP
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109
ZACHARIAS,KULANGARA,P, GS
1514 C TROY RD
EDWARDSVILLE IL 62025
ZAHORSKY,THEODORE,S, PO
600 S HANLEY RD-APT 3B
ST LOUIS 63105
ZEFFREN,J,LESTER, IM
2428 WOODSON RD
OVERLAND 63114
ZEKERT,HORST, IM
5203 CHIPPEWA
ST LOUIS 63109
ZIEGELMEYER,JOHN,SIMON, GP
40 N KINGSHIGHWAY
ST LOUIS 63108
ZIEGLER,VINCENT,E, P
BARNES HOSPITAL
DEPARTMENT OF PSYCHOLOGY
ST LOUIS 63110
ZINGALE,FRANK,GED, U
6500 CHIPPEWA ST
ST LOUIS 63109
ZIVNUSKA,FREDERICK,R, TR
ST MARY HOSP DEPT THER RAD
EVANSVILLE IN 47708
ZDGRAFAKIS,GED,H, PS
100 N EUCLID AVE
ST LOUIS 63108
ZUCKNER,JACK, RHU
16 OAKLEIGH LANE
ST LOUIS 63124
ZUKOWSKI,EDWARD,THEODORE, R
88 RIVER BEND DR
CHESTERFIELD 63017
ZWART,CLAUDE,HENRIET, OTO
634 NORTH GRAND BLVD
ST LOUIS 63103

## 194—ST. LOUIS COUNTY

ABBDUD,NABIL, AN
216 S KINGS HIGHWAY
ST LOUIS 63110
AFF,HELEN, PD
1412 SPAEDE RD
ST LOUIS 63131
AL-ALY,MOHAMMED, R
6651 CHIPPEWA
ST LOUIS 63109
ALBERA,VICTOR,HAROLD, EM
RR #2-BOX 236
ST CLAIR 63077
ALEX,MORRIS, IM
522 N NEW BALLAS RD
ST LOUIS 63141
ALEXANDER,GEO,KARADIMOS, GS
2821 N BALLAS RD
ST LOUIS 63141
ALLEN,JAMES,HOLLIS, PTH
11133 DUNN RD
ST LOUIS 63136
ALTHAUS,CARL,J, OM
15225 ISLE VIEW DR
BALLWIN 63011
ALTHEIDE,HARVEY,E IRVING, D
9 MAGNOLIA DR
ST LOUIS 63124
ALVAREZ,ULISES,CASIMIRO, IM
INTERNAL MEDICINE
NORTHLAND MEDICAL BLDG
SUITE 330
ST LOUIS 63136
AMIN,AURDRA, P
177 PLANTATION DRIVE
ST LOUIS 63141
ANSLINGER,DAVID,LAWRENCE, IM
14329 LAKE TAHOE DR
CHESTERFIELD 63017
ANTONIDU,CHRISTOS,A, PD
500 NORTHWEST PLAZA
ST ANN 63074
ARENOS,PROCESO,T, GS
120 PROGRESS PKWY
MARYLAND HEIGHTS 63043
ARONBERG,JERDME,MILTON, D
141 N MERAMEC
ST LOUIS 63105
ARONSON,ABRAHAM, P
522 N NEW BALLAS RD
ST LOUIS 63141
AYATA,SEDAT,M, AN
6420 CLAYTON RD
ST LOUIS 63117
AYLWARD,HOWARD,JOS, IM
911 S BRENTWOOD BLVD
ST LOUIS 63105
AYVAZIAN,VATCHE,H, GS
615 S NEW BALLAS RD
ST LOUIS 63141
BAGBY,JAMES,W, D
COUNTRY LIFE ACRES APT 7
ST LOUIS 63131
BAGWE,LATA,R, OBG
1404 CHANDELLAY DR
CREVE COEUR 63141
BAILEY,WM,HAROLD, OPH
9157 MILTON AVE
ST LOUIS 63114
BALSTER,VERNON,HENRY, OM
819 LOCUST
ST LOUIS 63101
BAMSHAD,JERRY, D
1125 GRAHAM RD
FLORISSANT 63031
BANJASTITKUL,CHUSAK, PS
2821 N BALLAS RD STE C-20
ST LOUIS 63131
BARKER,EDWARD,THEODORE, PD
2821 N BALLAS RD
ST LOUIS 63131
BARRAGAN,HECTOR,D, GS
901 CLAYTON RD
BALLWIN 63011
BARROW,JACK, A
35 N CENTRAL AVE
ST LOUIS 63105
BARTON,LESLIE,G L, PD
1022 WILD CHERRY
ST LOUIS 63130
BARTON,ROBT,WILLEY, GE
4910 FOREST PARK
ST LOUIS 63108
BAUER,JOS,A, PO
5 RIDGEWOOD RD
ST LOUIS 63124
BAUER,ROBT,A, FP
2386 N HIGHWAY 67
FLORISSANT 63033
BEASLEY,LOUIS,K, GE
BOX 968
PORT SALERNO FL 33492
BECKER,ROBT,LOUIS, OBG
2821 N BALLAS RD
ST LOUIS 63131
BENAGE,CLARENCE,MATTHEW, GS
1125 GRAHAM RD
FLORISSANT 63031
BENDIST,WALTER,FISCHEL, PO
119 CHURCH ST
ST LOUIS 63135
BERGER,EDWARD,J, GPM
300 S GRAND BLVD
ST LOUIS 63103
BERGMANN,JOHN,FREDERICK, P
522 N NEW BALLAS RD
ST LOUIS 63141
BERGMANN,MARTIN, TS
8515 DELMAR BLVD
ST LOUIS 63124
BERNABE,FLORINIO,H, OBG
2250 UNION RD
ST LOUIS 63125
BERNABE,OFELIA,M, IM
2250 UNION RD
ST LOUIS 63125
BERNDSEN,GERARD,H, GP
12933 TOPPING ESTATES S
ST LOUIS 63131
BERNSTEIN,AARON,M, IM
7171 DELMAR
ST LOUIS 63130
BERWALD,DAVID,MORTON, GS
11789 NATURAL BRIDGE
BRIDGETON 63044
BERWALD,IRVIN,I, FP
747 OLD BOHOMME ROAD
ST LOUIS 63132
BHATTACHARYA,ARJUN, GS
7200 MANCHESTER RD
ST LOUIS 63143
BHDTHINARD,BHISIT, N
13031 WINDING TRAIL LANE
ST LOUIS 63131
BILCHIK,RONALD,CHAS, OPH
777 S NEW BALLAS ROAD
ST LOUIS 63141
BIRENBAUM,AARON, IM
10511 OLD OLIVE ST RD
ST LOUIS 63141
BISHOP,MARION,DALE, GP
751 ST FRANCIS ST
FLORISSANT 63031
BLACKMAN,PATRICIA,A B, PD
111 CHURCH ST
FERGUSON 63135
BOLES,C,READ, PD
35 N CENTRAL AVE
CLAYTON 63105
BOLINSKE,ROBT,E, A
11722 STUDT AVE
ST LOUIS 63141
BONSANTI,ROBT,LOUIS, IM
3394 MC KELVEY RD
BRIDGETON 63044
BOONSHAFT,BENJE, IM
10511 OLD OLIVE ST RD
ST LOUIS 63141
BDRTNICK,ARTHUR,R, GYN
777 S NEW BALLAS RD
ST LOUIS 63141
BOWLES,G,ROBT, IM
12166 BIG BEND
ST LOUIS 63122
BRAND,EARL,L, GP
120 E LOCKWOOD
ST LOUIS 63119
BRAUFMAN,HARVEY,S, OPH
111 CHURCH ST
FERGUSON 63135
BRIDN,PACELLI,ESCONDO, P
6500 CHIPPEWA STE 307
ST LOUIS 63109
BRISCOE,JOHN,RANDOLPH, GP
7346 A MANCHESTER
MAPLEWOOD 63143
BRODY,ARNOLD,GENE, FP
8553 COLONIAL LANE
ST LOUIS 63124
BURNSIDE,CHAS,R, IM
206 W ARGONNE
KIRKWOOD 63122
BURSTEIN,ROBT, OBG
911 S BRENTWOOD BLVD
ST LOUIS 63105
BUTLER,RICHARD,L, CD
11133 DUNN RD
ST LOUIS 63136
BUTSCH,RICHARD,HENRY, IM
901 CLAYTON RD
BALLWIN 63011
CABRAL,GALILEU, IM
14377 WOODLAKE DR
CHESTERFIELD 63017
CACIDPPD,JOS,E, GP
1040 N MASON RD N
ST LOUIS 63141
CALLAHAN,DONALD,E, R
11155 DUNN RD RM 201
ST LOUIS 63136
CAPAPAS-WAXELMAN,LENA,R, IM
9903 GRAVOIS AVE
AFFTON 63123
CARDENAS,JUAN,OSWALDO, DM
1125 GRAHAM RD
FLORISSANT 63031
CARLSON,ARNE,E, GS
3466 BRIDGELAND DR
SUITE 150
BRIDGETON 63044
CARMONA,GILBERTO,V, PO
525 JEFFCO BLVD
ARNOLD 63010
CARRERA,MARIO, FP
1218 HIBLER
ST LOUIS 63141
CARRIER,JOHN,A, IM
300 S GRAND
ST LOUIS 63103

CARROLL,PERCY,J, GS
10341 MANCHESTER RD
ST LOUIS 63122

CARTER,EDWIN,E, ORS
777 S NEW BALLAS RD
CREVE COEUR 63141

CASTRO,JUAN,M, IM
7943 BIG BEND BLVD
ST LOUIS 63119

CATANZARO,RUDOLPH,E, GS
8131 PAGE BLVD
ST LOUIS 63130

CHAKROBORTTY,H, U
3654 S GRAND
ST LOUIS 63118

CHINSKY,MURRAY, IM
500 NORTHWEST PLAZA STE 501
ST ANN 63074

CHOI,SAE,RONG, GS
157 SOUTH GRAESER RD
ST LOUIS 63141

CHUA,STEVEN, IM
1125 GRAHAM ROAD
FLORISSANT 63031

CHUNG,KAP-EUN, GS
205 WEST MAIN
FREDERICKTOWN 63645

CLAYTON,JILL,MARSHALL, AN
47 CLERMONT LANE
ST LOUIS 63131

CODILLA,SOSTENES,G, GS
1610 CAMP JACKSON RD
CAHOKIA IL 62206

COHEN,FRANK, IM
300 S GRAND
ST LOUIS 63103

COHEN,ROBERT,STUART, OBG
2821 BALLAS RD STE 255
ST LOUIS 63131

COKRHAME,JACK, IM
1125 GRAHAM RD
FLORISSANT 63031

COLLINS,JACK,RAYMOND, AN
1566 MASON VALLEY DR
ST LOUIS 63131

COLLINS,JOHN,MICHAEL, GP
6928 HAMPTON AVE
ST LOUIS 63109

CONE,ALFRED,J, OTO
635 WOOD MILLS RD S
CHESTERFIELD 63017

COOPER,BYRON,S, PUD
DIV OF PULMONARY MED
BARNES HOSP GRP
ST LOUIS 63110

CORWIN,KENNETH,DALE, PS
777 S NEW BALLAS RD STE 125-W
ST LOUIS 63141

COSTRINO,JOS,A, OM
12567 CONWAY RD
ST LOUIS 63141

COWDRY,EDMUND,V, P
700 BILTMORE AVE APT 110
ASHEVILLE NC 28803

COZART,DUANE,EMMETT, IM
4910 FOREST PARK
ST LOUIS 63108

CRAWFORD-TROTTER,KATH,J, GS
35 N CENTRAL
ST LOUIS 63105

CRESPO,HORACIO,TIANGCO, GP
245 LITCHFORD CT
ST LOUIS 63141

CRESPO,REMEDIOS,RIVERA, GP
245 LITCHFORD CT
ST LOUIS 63141

CUENTO,OBLENDO,ALMENORAS, GS
12166 BIG BEND RD-STE 305
KIRKWOOD 63122

CULLUM,ALBERT,GEO J, OTO
MED ARTS BLDG
MIDDLESBORO KY 40965

CUNNINGHAM,EDWIN,J, IM
164 W CLAYTON RD
BALLWIN 63011

CUTLER,HARRY, U
4511 FOREST PARK BLVD
ST LOUIS 63108

DAS,ARABINDA, P
20 SOUTH THIRD
BELLEVILLE IL 62221

DAVIDSON,MORRIS, OTO
35 N CENTRAL AVE
CLAYTON 63105

DAVIS,GENE,L, DR
11133 DUNN RD
ST LOUIS 63136

DE LEON,ROMUALDO,V, IM
525 JEFFCO BLVD
ARNOLD 63010

DEBNAM,JAMES,WALTON, R
391 MADEWOOD LANE
CHESTERFIELD 63017

DEITCHMAN,ROBT,B, P
141 N MERAMEC AVE
CLAYTON 63105

DEL ROSARIO,HORACIO,D, IM
3809 UNION BLVD
ST LOUIS 63104

DENNISON,CARL,FRANCIS, FP
5471 DR MARTIN LUTHER KING DR
ST LOUIS 63112

DEUTCH,MAX, PD
29 WILLOW HILL RD
ST LOUIS 63124

DI PASCO,DONALD,JOHN, IM
51 MAGNOLIA DR
ST LOUIS 63124

DICKLER,DONALD,JOS, AN
833 AUDUBON DR
ST LOUIS 63105

DIEHR,MAURICE,AUGUST, GS
24 DROMARA RD
ST LOUIS 63124

DIERBERG,DALE,F, DR
11155 DUNN RD
ST LOUIS 63136

DIESTELHORST,JAMES,ALVIN, IM
14377 WOODLAKE DR
CHESTERFIELD 63017

DOISY,ROBT,A, IM
325 N KIRKWOOD RD
KIRKWOOD 63122

DONLEY,LEO,FRANCIS, OM
2425 N BROADWAY
ST LOUIS 63102

DOUGHERTY,CHARLES,H, PD
3535 S JEFFERSON AVE
ST LOUIS 63118

DOWELL,GEO,HOWARD, P
2821 N BALLAS RD
ST LOUIS 63131

DRUCK,NORMAN,STEVEN, OTO
4949 FOREST PARK
ST LOUIS 63108

DUGGAN,JOHN,JOS, OBG
10805 SUNSET OFFICE DR
ST LOUIS 63127

DUMADAG,VIRGILIO,P, PTH
3015 N BALLAS RD
ST LOUIS 63131

DURR,JON,W, PTH
2821 N BALLAS RD
ST LOUIS 63131

EBEL,EUGENE,HENRY, PD
11115 NEW HALLS FERRY
FLORISSANT 63033

ECKER,DESIDER,B, GP
P O BOX 448
PACIFIC 63069

EGGLESTON,HARRY,CONRAD, OPH
621 S NEW BALLAS RD
ST LOUIS 63141

EGGLESTON,THOS,F, OPH
621 S NEW BALLAS
ST LOUIS 63141

EHRLICH,CARL,FRANK, OTO
777 S NEW BALLAS RD
ST LOUIS 63141

EIDELMAN,JACK,ROBT, P
141 N MERAMEC
ST LOUIS 63105

ELLER,CHAS,HOWE, PH
250 E ALAMEDA
SANTA FE NM 87501

ELSON,JULIUS, CD
1125 GRAHAM RD
FLORISSANT 63031

EMERSON,REYNOLDS,L, GP
1695 BRENTWOOD BLVD S
BRENTWOOD 63144

ERNST,JOS,G, IM
325 N KIRKWOOD RD
KIRKWOOD 63122

ESCOBEDO,BOLIVAR,M, GS
13975 MANCHESTER ROAD
MANCHESTER 63011

ESTES,JACK,MARTELL, OS
SUITE #4
493 RUE ST FRANCOIS
FLORISSANT 63031

EVERSOLL,NORTON,JOHN, DS
1455 TYLER ST
HOLLYWOOD FL 33020

EXARHOU,KLARK, GS
777 S NEW BALLAS ROAD
ST LOUIS 63141

FABITO,DANIEL,C, ABS
120 PROGRESS PKWY
HAZELWOOD 63043

FABITO,MELINDA,AYALA, IM
22 DREYER DR
EUREKA 63025

FATHMAN,ANTHONY,ERRETT, U
777 S NEW BALLAS ROAD
ST LOUIS 63141

FEIBEL,ROBT,MARKS, OPH
1034 S BRENTWOOD BLVD
ST LOUIS 63117

FELDMAN,DAVID, IM
11501 LAKESHORE DR
ST LOUIS 63141

FELICIANO,WILFRIDO,C, PS
1245 GRAHAM RD
FLORISSANT 63031

FERRARA,JOHN,PIERRE, GP
15637 HEATHERCRAFT
CHESTERFIELD 63017

FEUTZ,EDWARD,P, R
19 RIDGEMOOR DR
ST LOUIS 63105

FIGUEROA,ELISEO,D, IM
11155 DUNN RD
ST LOUIS 63136

FINGERHOOD,MARVIN,G, IM
1195 CIMARON DR
ST LOUIS 63132

FINGERT,HYMAN,H, P
100 N EUCLID
ST LOUIS 63108

FINKEL,BARNEY,WM, GP
6506 W FLORISSANT
ST LOUIS 63136

FISCHER,JOHN,R B, P
12255 DE PAUL DR
BRIDGETON 63044

FISH,RICHARD,G, OTO
4370 FOREST DE VILLE DR
ST LOUIS 63129

FISHMAN,JOHN,JAY, AN
3015 N BALLAS RD
ST LOUIS 63131

FLETES,JAMES,W, GP
7270 NATURAL BRIDGE AVENUE
ST LOUIS 63121

FLORO,MARIANO,N, GS
11115 NEW HALLS FERRY RD
FLORISSANT 63033

FLYNN,THOMAS,T, P
10007 KENNERLY ROAD
ST LOUIS 63128

FORSMAN,WALDO,WORTH, GP
9436 GRAVOIS
ST LOUIS 63123

FORSYTH,BRUCE,TODD, IM
100 N EUCLID
ST LOUIS 63108

FOX,LEON,J, ORS
4511 FORES PARK AVE
ST LOUIS 63108

FRANKLIN,HAROLD,ALVIN, CD
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109

FRIEDMAN,IRA,JEROME, PD
2428 WOODSON RD
OVERLAND 63114

FRIEDMAN,ROBT,HENRY, PD
2821 N BALLAS RD
ST LOUIS 63131

FROELICH,EDWIN,JACOB, DS
RT 7
LEBANON 65536

FUCHS,GEO,JOS, OS
ROUTE 2
BARNETT 65011

GALE,ARTHUR,HELMAN, IM
2428 WOODSON RD
OVERLAND 63114

GALL,IRA,C, OBG
777 S NEW BALLAS RD
ST LOUIS 63141

GEARHART,WILBUR,HARRIS, P
2821 N BALLAS RD STE 165
ST LOUIS 63131

GELLMAN,ELLIOT,FIELD, PD
621 S NEW BALLAS ROAD
ST LOUIS 63141

GEORGE,PHILIP,G, ORS
1034 S BRENTWOOD BLVD
SUITE 650
RICHMOND HEIGHTS 63117

GIBSTINE,MARVIN,HAROLD, PD
12255 DEPAUL DR
BRIDGETON 63044

GIESELMAN,RALPH,VICTOR, IM
4910 FOREST PARK BLVD
ST LOUIS 63108

GIRAPARNONT,PRABHAK, EM
12845 GLENBERNIE
ST LOUIS 63141

GOLDMAN,GORDON,MELVIN, OBG
1125 GRAHAM RD
FLORISSANT 63031

GOLDMAN,HYMEN,JOS, D
4511 FOREST PARK
ST LOUIS 63108

GOLLUB,SAML,WALTER,
539 COEUR DE ROYALE
ST LOUIS 63141

GOMEZ,CESAR,A, GS
777 S NEW BALLAS
SUITE 117E
ST LOUIS 63141

GOODMAN,JONATHAN,N, GP
245 UNION BLVD
ST LOUIS 63108

GOODMAN,NATHANIEL, GP
7521 W FLORISSANT AVENUE
ST LOUIS 63136

GDDDRICH,HAROLO,A, IM
52 S RDCK HILL RD
WEBSTER GROVES 63119

GRADY,RONALD,KEENEY, CD
2821 N 8ALLAS RD
ST LDUIS 63131

GRAY,GARY,JAMES, 1M
911 S BRENTWDDD
ST LDUIS 63105

GREEN,MANUEL,EDWIN, D
10433 BRIAR BEND
ST LOUIS 63141

GREENMAN,MARSHALL,B, PD
777 S NEW BALLAS RD
ST LOUIS 63141

GRDNAU,AXEL,REINHDLD L, IM
ROBERT KOCH HOSP
KOCH 63054

GRUNDMANN,WM,HENRY, ORS
141 N MERAMEC
ST LOUIS 63105

GUILLEN,RODOLFO,T, PH
2821 NORTH BALLAS ROAD
ST LOUIS 63131

GUPTA,J1TENDRA,K, IM
1040 N MASON RD STE 107
ST LOUIS 63141

GUPTA,NARAYAN,CHANDRA, P
6331 DEVONSHIRE
ST LOUIS 63109

GURSAHANI,MAN,MOHAN, U
1034 S BRENTWOOD BLVD
STE 854
ST LOUIS 63117

HAGEMANN,PAUL,OONK, RHU
141 N MERAMEC AVE
ST LOUIS 63105

HAGEN,DUANE,QUENTIN, P
621 S NEW BALLAS RD
ST LOUIS 63141

HALL,EUGENE,W, GP
116A S FLORISSANT RD
FERGUSON 63135

HALLAZGO,SANTIAGO,Y, FP
11140 MANCHESTER RD
ST LOUIS 63122

HALLINGER,EARL,S, D
121 N BRENTWOOD
CLAYTON 63105

HAMMOND,D,WADE, ORS
12166 BIG BEND BLVD
ST LOUIS 63122

HANNA,FAYEZ,ANDRAWIS, P
3394 MC KELVEY
BRIDGETON 63044

HANTMAN,STEPHEN,LEWIS, 1M
1125 GRAHAM RD
FLORISSANT 63031

HANTZ,OSCAR, OTO
1125 GRAHAM RD
FLORISSANT 63031

HARDIN,WM,BLANCHARD, N
2821 N BALLAS RD STE 120
ST LOUIS 63131

HARDY,GUERDAN, OTO
35 N CENTRAL AVE
CLAYTON 63105

HARDY,PATRICK,JOS, 1M
1125 GRAHMA RD
FLORISSANT 63031

HARWELL,JAMES,LARRY, PD
35 N CENTRAL
ST LOUIS 63105

HASENMUELLER,JAMES,JOS, GS
10004 KENNERLY RD
SUITE 110
ST LOUIS 63128

HELBING,EDWARD,J, OS
250 ALAMEDA #105
SANTA FE NM 87501

ENDIN,AARDN, 1M
4268 DELOR
ST LDUIS 63116

ERJANIC,MARIJAN, P
1420 GRATTAN
ST LOUIS 63104

ERSHEY,FALLS,B, CD
621 S NEW BALLAS RD
ST LOUIS 63141

ERZOG,GODOFREDO,MAX, OBG
1125 GRAHAM RD
FLORISSANT 63031

IATT,H,CHARLES, IM
138 N MERAMEC
ST LDUIS 63105

ICKEY,GLENN,MONROE, OBG
701 MANCHESTER RD
MANCHESTER 63011

OBBS,JOHN,E, OBG
WOODCREST DR
ST LOUIS 63124

OBSON,GERALD,JOS, OPH
855 HIGH GREEN CT
MARIETTA GA 30067

OLDER,BARRETT,KENT, ORS
777 SO NEW BALLAS RD
ST LOUIS 63141

HOLTZ,SUMNER, R
5535 DELMAR
ST LOUIS 63112

HODKERMAN,BRUCE,JAY, D
12255 DE PAUL DR
8RIDGETON 63044

HDRRILLENO,EMILID,GREY, FP
10418 GREGORY CT
ST LOUIS 63128

HDWE,ALBERT,LOUIS, IM
300 S GRAND
ST LOUIS 63103

HDWE,LOUIS,FRANCIS, GP
1136 RIDGELYNN
ST LOUIS 63124

HUANG,CHUDNG,CHUN, P
3304 S 123 ST
MILWAUKEE WI 53227

HUCK,FRANK,FISHER, GP
322 MAIN ST
SAFFORD AZ 85546

HUDGENS,RICHARD,WATTS, P
777 S NEW BALLAS RD-STE 234E
ST LDUIS 63141

HUGHES,ROBT,GERARD, OM
11745 OLIVE BLVD
ST LOUIS 63141

1SLAM,MD,NURUL, EM
10010 KENNERLY RD
ST LOUIS 63128

IZMIRLIAN,GRANT, GP
1040 N MASON RD
ST LOUIS 63141

JACOBS,FREDERICK,AUGUST, PD
10929 ABBDTT AVE
SUN CITY AZ 65351

JAIN,SAVITRI,GUPTA, IM
12166 BIG BEND BLVD
ST LOUIS 63122

JARVIS,CATHY,C, IM
15951 THROWBRIDGE RD
CHESTERFIELO 63017

JATALA,IJAZ,AHMAD, P
819 LOCUST
ST LOUIS 63101

JENKINS,JAMES,J, AN
216 SO KINGSHIGHWAY
ST LOUIS 63110

JENSEN,JOSHUA,ERNEST, GS
CHRISTIAN HOSPITAL NORTHEAST
11155 DUNN RD
ST LOUIS 63136

JICK,SIDNEY, IM
10287 CLAYTON RD
ST LDUIS 63124

JOHNSON,RDY, GP
RR #1 BOX 93
FDRISTELL 63348

JOHNSON,TOM,A, FP
615 SD NEW BALLAS RD
ST LOUIS 63141

JONES,DOROTHY,J, PO
#6 GLEN CREEK ALNE
ST LOUIS 63124

JONES,SARA,T, AN
7347 MARYLAND
ST LOUIS 63130

JONES,VICTDR,T, R
950 FRANCIS PL
ST LOUIS 63105

JOTTE,RICHARD,F, FP
10300 ST CHARLES ROCK RD
ST ANN 63074

KABIR,MDHAMMED,AHMED,
10000 HIGHWAY 366
ST LOUIS 63126

KAHN,LAWRENCE,IRVING, PD
4566 SCOTT AVE
ST LDUIS 63110

KAMURAN,OZGONCU, OBG
777 S NEW BALLAS RD STE 217E
ST LOUIS 63141

KANNEGIESSER,HARTMUT, IM
300 S GRAND
ST LOUIS 63103

KANTOR,OWEN, IM
1034 SO BRENTWOOD
ST LOUIS 63117

KARDESCH,MILTON, IM
9293 WATSON RD
ST LOUIS 63126

KARSH,ROBT,S, IM
2428 WOODSON RD
ST LDUIS 63114

KAUP,CHANDRA,S, IM
1125 GRAHAM RD
FLORISSANT 63031

KENDIS,JOS,BERNARD, OS
777 S NEW BALLAS RD
ST LOUIS 63141

KENNEY,JDHN,D, ORS
10004 KENNERLY RD
SUITE 140
ST LOUIS 63128

KESSLER,SHELDON, PD
1125 GRAHAM RD
FLORISSANT 63031

KHAN,ABDUL,GHANI, PD
JEFFERSDN CUUNTY MED ARTS BLDG
ROUTE 1-SUITE 6
ARNDLD 63010

KHAN,ALTAF,ALI, GE
12166 BIG 8END BLVD
ST LDUIS 63122

KILKER,CLARENCE,H, GP
7231 WINCHESTER DR
NDRMANDY 63121

KILKER,DDNALD,EDWIN, GP
7520 NATURAL BRIDGE RD
NURMANDY 63121

KIMELMAN,NATHAN, 1M
6744 CLAYTDN RD
ST LDUIS 63117

KING,EUSTACE,E, OM
111 CHURCH ST
FERGUSON 63135

KINGSLAND,ROBT,C, 1M
6150 DAKLAND
ST LOUIS 63139

KIPNIS,DAVID,M, IM
660 S EUCLID
ST LOUIS 63110

KNIGHT,FRANKLIN,P, ABS
11115 NEW HALLS FERRY RD
FLORISSANT 63033

KNOCK,HENRY,LERDY, PD
135 W ADAMS ST
KIRKWOOD 63122

KOERNER,KENNETH,ALBERT, PD
2821 N 8ALLAS RD
ST LOUIS 63131

KONZELMAN,JOHN,A, GP
7401 TEASDALE AVE
UNIVERSITY CITY 63130

KORENBLAT,PHILLIP,ERWIN, A
10287 CLAYTON RO
ST LOUIS 63124

KREWET,FRANK,A, IM
1700 S SECOND ST
ST LOUIS 63177

KUTTNER,MARIANNE, PD
8515 DELMAR BLVD
ST LOUIS 63124

KWAN,VICENTE,WONG, IM
4 PARKWAY SHOPPING CENTER
POTOSI 63664

KYAW,MYO,M, DR
11155 DUNN RD
ST LOUIS 63136

LADD,DANIEL,J, CLP
3015 N BALLAS RD
ST LOUIS 63131

LAIRD,JOHN,MAJOR, IM
1125 GRAHAM RD
FLORISSANT 63031

LANSCHE,W,EDWARD, ORS
777 S NEW 8ALLAS RD
ST LOUIS 63141

LAU8ER,JOS,JOHN, FP
621 S NEW BALLAS RD
ST LOUIS 63141

LEE,KIL,SOO, DR
11155 DUNN RD
ST LOUIS 63136

LEMING,BERT,H, PTH
11714 CRAIGVIEW DR
ST LOUIS 63141

LEDNHARDT,ERWIN,M, IM
ST ANTHONYS MED OFFICE BLOG
SUITE 335
10004 KENNERLY RD
ST LOUIS 63128

LESLIE,CHAS,HARDLD, GP
1065 HAVERSHAM PL
OES PERES 63131

LEVIN,MARVIN,E, IM
777 S NEW BALLAS RD
ST LDUIS 63141

LEVINE,LAURENCE,ARVIN, OTO
4949 FOREST PARK
ST LOUIS 63108

LEWIN,W,HOWARD, DPH
906 OLIVE ST
ST LDUIS 63101

LIEBHABER,HARVEY, OS
216 S KINGSHIGHWAY
ST LOUIS 63110

LINDER,HOWARD,EUGENE, IM
3015 N BALLAS RD
ST LOUIS 63131

LINS,ROBT,DEAN, PO
309 MANCHESTER RD
MANCHESTER 63011

LIPSCHITZ,ERVIN, P
777 S NEW BALLAS RD
ST LOUIS 63141

LISS,JAY,LAWRENCE, P
763 SOUTH NEW BALLAS RD
ST LOUIS 63141

LISSNER,ARTHUR,BART, PS
1245 GRAHAM RD
FLORISSANT 63031

LITZOW,LOUIS,THOS, GE
10004 KENNERLY RD RM 225
ST LOUIS 63128

LIVINGSTON,DON,GED, PD
650 MANCHESTER RD
BALLWIN 630II
LOHR,ROBT,WM, R
236 CONWAY HILL RD
ST LOUIS 63141
LORD,RICHARD,E, ORS
I2166 BIG BEND BLVO
ST LOUIS 63I22
LOWTHER,GERALO,SCOTT, PO
901 CLAYTON RO
BALLWIN 630II
LUEHRS,ROBT,O, CHP
230 S BEMISTON
CLAYTON 631D5
LUNO,HERLUF,G, U
3654 S GRAND AVE
ST LOUIS 63IIB
LUND,ROBT,H, GS
1D34 S BRENTWOOD
ST LOUIS 63117
LUTHER,GEORGE,A, ORS
12166 BIG BEND RD
ST LOUIS 63I22
LYSS,CARL,ALAN, IM
IDD N EUCLIO
ST LOUIS 63I06
LYSS,STANLEY,BERNARD, PD
621 S NEW BALLAS RD
ST LOUIS 6314I
MAC CAUGHELTY,THOMAS,C, AN
1B2I SUNNY OR
ST LOUIS 63I22
MACLEOD,ANGUS, CD
3555 SUNSET OFFICE DR
ST LOUIS 63127
MAGEE,WM,E, 1M
49I0 FOREST PARK BLVD
ST LOUIS 631DB
MAGNESS,GUY,NORTON, GP
6DB KINGSLAND AVE
UNIVERSITY CITY 6313D
MAHE,GEO,A, 1M
911 S BRENTWOOD BLVD
ST LOUIS 63105
MALT,SHERWIN,HUGH, GS
522 N NEW BALLAS RD
ST LOUIS 6314I
MANNIS,CHARLES,1, ORS
522 N NEW BALLAS RD
ST LOUIS 6314I
MARAVILLA,LEVY,M, GP
4211 BAYLESS AVE
ST LOUIS 63123
MARCUS,MORRIS,OAVID, D
B63I DELMAR BLVD
ST LOUIS 63I24
MARGOLIS,RICHARD,M, PD
1125 GRAHAM RD
FLORISSANT 63031
MARMOR,WM,ADOLPH, OTO
1233 GUELBRETH LN
ST LOUIS 63I41
MARTIN,FREDERICK,WM, OBG
325 N KIRKWOOD RD
ST LOUIS 63I22
MARTIN,PHILIP,LATHAM, OTO
10000 HIGHWAY 366
ST LOUIS 63126
MARTZ,JOHN,CHAS, PD
325 N KIRKWOOD RD
ST LOUIS 63122
MATHEW,RUBY, O6G
42B FOUR SEASONS CENTER
WOODS MILL & OLIVE ST RDS
CHESTERFIELD 630I7
MAXWELL,RICHARD,W, 1M
49B9 BARNES HOSPITAL PLAZA
ST LOUIS 6311D
MAYER,RO6T,AUGUST, 1M
B63I DELMAR BLVD
ST LOUIS 63124
MC CALL,EDWIN,LEVAN, GP
22 HILLTOP DR
KIMBERLING CITY 65666
MC CLURE,DAVID,N, PD
2B2I N BALLAS RD
ST LOUIS 63131
MC GINNIS,WM,FITCH, OBG
5505 DELMAR
SUITE 2D6
ST LOUIS 631I2
MC KEE,OLIVER,AUGUSTUS, D
325 N KIRKWOOD RD
KIRKWOOD 63I22
MC LEAN,ROYAL,C, GP
52D W JEWEL AVE
KIRKWOOD 63I22
MC MULLIN,FORBES,A, ORS
2621 N BALLAS RD
ST LOUIS 6313I
MC MURRAY,HERBERT,C, GP
BOX 789
MANCHESTER 630II
MC NALLEY,MICHAEL, OBG
135 W ADAMS
KIRKWOOD 63122
MEADOR,JAMES,RUEL, GS
10367 OXFORO HILL DRIVE
ST LOUIS 6314I
MEADOWS,CHAS,DOUGLAS, OM
777 S NEW BALLAS RD
ST LOUIS 63I41
MEDLER,JOHN,FRANCIS, OBG
2B2I N BALLAS RD
ST LOUIS 6313I
MEOLER,PAUL,LOUIS, O
I2166 BIG BEND
ST LOUIS 63122
MEORANO,CRESENCIANO,A, OBG
19 SO JACKSON ST
PERRYVILLE 63775
MEORANO,LINA,EBRO, IM
5471 MARTIN LUTHER KING DR
ST LOUIS 63112
MENCIAS,CRISTETA,B, OBG
909 MEADOWLARK DR
O'FALLON IL 62269
MENDELSON,DAVID,F, N
14I N MERAMEC AVE
ST LOUIS 63105
MENESES,ORLANDO,GUALLAR, GP
1I327 GRAVOIS
ST LOUIS 63126
MERRIMS,THEODORE, OBG
6631 DELMAR BLVD
ST LOUIS 63124
MERRITT,BURCH,ANTHONY, PD
12937 TIMMOR CT
ST LOUIS 63131
MEYER,JAMES,E, GP
P O BOX 637
MANCHESTER 630II
MEYER,JAY,LAWRENCE, P
763 SOUTH NEW BALLAS RD
ST LOUIS 63141
MEZERA,RAYMOND,A, CD
7345 WHITEHAVEN
ST LOUIS 63123
MIDOLETON,JERRY,NORTON, OBG
777 S NEW BALLAS RD
ST LOUIS 63141
MIKOLAJCZAK,JAMES,
P O BOX 9643
ST LOUIS 63122
MILDER,BARRY,D, DPH
211 N MERAMEC AVE
CLAYTON 63105
MILDER,BENJ, OPH
ID TERRYHILL LANE
ST LOUIS 63131
MILES,PAUL,WENDELL, OPH
2821 N BALLAS RD
ST LOUIS 63131
MILLANGUE,CONSOLACION,P, IM
BD59 WATSON RD
WEBSTER GROVES 63119
MILLANGUE,RAFAEL,M, GS
BD59 WATSON RD
WEBSTER GROVES 631I9
MILLER,CHAS, 1M
12166 BIG BEND BLVD
KIRKWOOD 63122
MINNIHAN,ROBT,W, P
III S MERAMEC AVE
ST LOUIS 631D5
MOHAPATRA,RAJ,N, U
12561 AMERSHAM CT
ST LOUIS 6314I
MOHINDRA,SUBODH,K, IM
3015 N BALLAS RD
ST LOUIS 63I31
MOLDEN,C,SCOTT, 1M
1I4 NO TAYLOR
ST LOUIS 6310B
MOLDEN,CHAS,ARTHUR, GP
7520 NATURAL BRIDGE RD
ST LOUIS 63I21
MOLITOR,JEROME,A, R
13427 LAND O WOODS
CREVE COEUR 63I41
MONAT,SEYMOUR,M, OBG
B631 DELMAR BLVD
ST LOUIS 63124
MONTES DE OCA,JULIO, IM
95D FRANCIS PL
CLAYTON 631D5
MONTES,ARTURO,CORTEZ, GP
I453 MC LARAN
ST LOUIS 63147
MOON,THOS,ROY, N
12I66 BIG BEND BLVD
KIRKWOOD 63122
MOORE,HARRY,GEO, CHP
141 N MERAMEC
ST LOUIS 631D5
MOORE,HARRY,GEO, OBG
625 S SKINKER APT 5D2
ST LOUIS 63105
MOORE,WALTER,LA MAR, N
35 W BRENTMOOR PARK
CLAYTON 631D5
MUELLER,ROBT,JOHN, P
I6 HAMPTON VIL PLAZA
ST LOUIS 63I09
MULLARKY,WILBUR,ARTHUR, IM
I0646 ST CHARLES ROCK RD
ST ANN 63D74
MURPHY,JOHN,CARROLL, PH
I4I N MCRAMEC AVE
CLAYTON 63I05
MYERS,IVAN,TALLEY, OBG
35 N CENTRAL AVE
ST LOUIS 63I05
NAIDU,GONUGUNTLA, 1M
I2541 CONWAY DOWNS OR
ST LOUIS 63I4I
NAKADA,JAMES,ROBT, CD
2 HUNTLEIGH OOWNS
ST LOUIS 6313I
NEELD,ELISE,MOSS, R
917 SO BRENTWOOD
ST LOUIS 63ID5
NELSON,JOHN,R,
12166 BIG BENO BLVO
ST LOUIS 63122
NEWPORT,GERALD, OBG
1125 GRAHAM RD
FLORISSANT 63031
NIEVA,DELFIN,T, AN
529I BRASS LANTERN
ST LOUIS 6312B
NOLLER,HENRY,WM, IM
9440 MIDLAND AVE
ST LOUIS 63II4
NOUHAN,JOS,GEO, OBG
62I S NEW BALLAS STE 560
CREVE COEUR 6314I
NOVACK,MARK,A, 1M
141 N MERAMEC
CLAYTON 63105
NUETZEL,JOHN,ARLINGTON, OS
9I1 S BRENTWOOD BLVO
CLAYTON 631D5
NUNEZ,MARIA,ANA, PD
2B21 6ALLAS RD STE I35
ST LOUIS 63131
NUSSBAUM,ROBT,ALLEN, CO
3555 SUNSET OFFICE DR
ST LOUIS 63127
O'BANNON,LON,W, IM
1I25 GRAHAM RD
FLORISSANT 63D31
O'CONNOR,ROBT,J, GP
75I ST FRANCOIS ST
FLORISSANT 6303I
O'KEEFE,JOS,D, OBG
I35 W ADAMS ST
KIRKWOOD 63122
O'NEAL,PATRICIA,LEE, P
49B9 BARNES HOSP PLAZA-5I01
ST LOUIS 63II0
OGLESBY,RICHARD,BERKELEY, OPH
62I S NEW BALLAS RD
ST LOUIS 6314I
OHLMS,DAVID,LEE, P
777 S NEW BALLAS RD
ST LOUIS 63I41
OLANDER,DAVID,S, PDC
62I S NEW BALLAS
CREVE COEUR 6314I
OMELL,GARY,HAROLD, DR
467 KILLEARN
ST LOUIS 63141
ORTILLO,AMADO,P, GP
103 N TAYLOR
ST LOUIS 63I22
OTT,HAROLD,JOHN, GP
26I6 SUTTON AVE
ST LOUIS 63143
OTTENSMEYER,CHAS,DONALD, P
3526 PRIMROSE CT
SPRINGFIELD 65BD7
OTTOLINI,JAMES,LOUIS, OBG
621 S NEW BALLAS RD
ST LOUIS 63141
PAEZ,MAURO,ALCALA, CLP
11636 ADMINISTRATION DR
ST LOUIS 6314I
PARIKH,SHARAD,P, EM
911 S BRENTWOOD BLVD
ST LOUIS 63ID5
PARIS,WM,HENRY, GP
7520 NATURAL BRIDGE RD
NORMANDY 63I21
PARK,AGATHA,LEE, D
I1155 DUNN RD
ST LOUIS 63136
PASIA,EBELLO,TAYLOR, GS
12127 BELLEFONTAINE RD
ST LOUIS 6313B
PAWOL,SYLVESTER,E, GP
117DI OLD ST CHAS RD
BRIDGETON 63D44
PEEBLES,JONATHAN,B,
RR #1
BUCHANAN TN 38222
PENNDYER,JAMES, DBG
491D FOREST PARK BLVD
ST LOUIS 631DB
PERRY,WM,DAVID, 1M
1034 S BRENTWOOD BLVD
ST LOUIS 63II7

PETERSON,FREDERICK,D, PD
8025 DALE AVE
ST LOUIS 63117
PHILIP,VARKEY, EM
525 COUCH AVE
KIRKWOOD 63122
PHILLIPS,HANFORD, HYP
6825 CLAYTON AVE
ST LOUIS 63139
PHIPATANAKUL,CHINTANA,S, A
1125 GRAHAM RD
FLORISSANT 63031
PHIPATANAKUL,SUPOTE, OTO
135 W ADAMS
ST LOUIS 63122
PIMENTEL,ESPERANZA,M, GP
6917 W FLORISSANT
ST LOUIS 63136
PIMENTEL,MAURICIO,F, GP
VA HOSPITAL
915 NO GRAND
ST LOUIS 63125
POWELL,CHARLES,B, ORS
1125 GRAHAM RD
FLORISSANT 63031
POWELL,JOHN,A, D
911 SO BRENTWOOD
ST LOUIS 63105
PROBST,RAYMOND,EDWARD, OBG
10345 WATSON RD
ST LOUIS 63127
QUADIR,HUMAYUM, NEP
10004 KENNERLY RD
ST LOUIS 63128
RACADIO,SEVERO,M, GP
1241 JEFFCO BLVD
ARNOLD 63010
RACHLIN,MAXWELL, OPH
211 N MERAMEC
ST LOUIS 63105
RAO,ASWATH,N, ORS
6500 CHIPPEWA ST
ST LOUIS 63109
RAO,CARLO, GS
7521 W FLORISSANT
ST LOUIS 63136
RAO,S,N, FP
10622 ST CHARLES ROCK RD
ST ANN 63074
REARDON,THOS,FRANCIS, IM
771 GABRIEL CT
ST LOUIS 63122
REDINGTON,JAMES,C, IM
911 S BRENTWOOD
ST LOUIS 63105
REED,LESLIE,G,
VA HOSPITAL
170 - J C
ST LOUIS 63125
REESE,ALMA,VICTOR, GP
120 E LOCKWOOD AVE
WEBSTER GROVES 63119
REINHARD,EDWARD,H, IM
4989 BARNES HOSPITAL PLAZA
ST LOUIS 63110
REITER,FEDERICO,B, DR
11155 DUNN RD
ST LOUIS 63136
REITMAN,STANLEY, IM
156 MAYFAIR PLAZA
FLORISSANT 63033
RENDLEMAN,DAVID,DOUGLAS, IM
35 N CENTRAL
CLAYTON 63105
RENNARD,MARVIN, OBG
2621 N BALLAS RD STE 255
ST LOUIS 63131
REPASO,FLORANTE,ANGELES, GS
20 HUGHES FORD RD
SULLIVAN 63080
REPP,THEODORE,J, IM
158 MAYFAIR PLAZA
FLORISSANT 63033
REYNOLDS,JAMES,ALAN, IM
141 N MERAMEC
ST LOUIS 63105
RICHARDSON,THOS,FRED, P
4989 BARNES HOSPITAL PLAZA
ST LOUIS 63110
RICHMOND,MICHAEL,ROBIN, IM
1125 GRAHAM RD
FLORISSANT 63031
RIGGIO,SALVATORE,N, PD
9901 GRAVOIS RD
ST LOUIS 63123
RING,EDWARD,M, TS
522 N BALLAS RD
ST LOUIS 63141
ROBERTS,HAROLD,KERSEY, IM
434 S HANLEY RD
CLAYTON 63105
ROBERTS,JOHN,PAYNE, IM
3015 BARRETTS STATION RD
KIRKWOOD 63122
ROBERTSON,FRANK,G, OBG
456 NO NEW BALLAS RD
ST LOUIS 63141

ROBINSON,EDITH,C, CHP
BRIAR OAK
ST LOUIS 63132
ROBLEE,MELVIN,ANDREW, OBG
WESTMINSTER-CANTERBURY HOUSE
1600 WESTBROOK AVE APT 228
RICHMOND VA 23227
ROGERS,HUNTER,BRYAN, TRS
819 LOCUST ST
ST LOUIS 63101
ROSENTHAL,RANDALL, P
522 N NEW BALLAS RD
ST LOUIS 63141
ROSS,WM,JOS, PD
119 CHURCH ST
ST LOUIS 63135
ROUSE,ERNEST,T, IM
1034 S BRENTWOOD BLVD
ST LOUIS 63117
ROUSE,ERNEST,T, PUD
1034 S BRENTWOOD
ST LOUIS 63117
RUBENSTEIN,MELVIN, P
522 N NEW BALLAS RD STE 136
ST LOUIS 63141
RUBIN,ROBT, IM
4585 WASHINGTON ST STE 83
FLORISSANT 63033
RUHLING,RUDY, FP
5203 CHIPPEWA
ST LOUIS 63109
RUMELT,MICHAEL, OPH
BALLAS-PARKWAY MEDICAL BLDG
456 N NEW BALLAS RD-SUITE 117
CREVE COEUR 63141
RYAN,JOHN,JOS, GP
28 RIDGETOP
CLAYTON 63117
SAHA,SUDHA,RANI, OBG
500 NW PLAZA
ST ANN 63074
SANTILLANO,ANTONIO,B, PTH
2821 N BALLAS RD
ST LOUIS 63131
SCHAERER,JACQUES,P, NS
777 S NEW BALLAS RD
ST LOUIS 63141
SCHECHTER,SAML,E, IM
8000 BONHOMME ST
CLAYTON 63105
SCHEELE,PAUL,MATTHIAS, IM
325 N KIRKWOOD ST
KIRKWOOD 63122
SCHLANSKY,SEYMOUR,M, PD
677 N NEW BALLAS RD
ST LOUIS 63141
SCHLUER,ELMER,P, GP
9 LONG MEADOWS
ST LOUIS 63131
SCHMIDT,C,ROBERT, AN
12303 DEPAUL DR
BRIDGETON 63044
SCHMIDT,EDMUND,MARTIN, GP
6704 W FLORISSANT AVE
ST LOUIS 63136
SCHNEIDER,SAM, GS
C/O FUNDEMBERG
1015 LOCUST
ST LOUIS 63101
SCHOENECKER,PERRY,LEE, ORS
4989 BARNES HOSPITAL PLAZA
ST LOUIS 63110
SCHOENTAG,JOHN,S, D
141 N MERAMEC
ST LOUIS 63105
SCHOPP,ALVIN,CHAS, ORS
10000 HIGHWAY 366
ST LOUIS 63126
SCHREIBER,DAVID,J, N
11155 DUNN RD
ST LOUIS 63136
SCHULTZ,EARL,ROBT, N
2821 N BALLAS RD
ST LOUIS 63131
SCHULTZ,SAML, GP
10455 CORBEIL
ST LOUIS 63141
SCHWARTZ,MELVIN,M, OBG
2821 N BALLAS
ST LOUIS 63131
SCHWARTZMAN,BERNARD, PD
1512 BEDFORD FORGE DR
CHESTERFIELD 63017
SCHWARZ,LUIS,HERMAN, P
1035 BELLEVUE AVE
ST LOUIS 63117
SEABAUGH,OTTIS,DEWEY, GP
1512 BEDFORD FORGE DR
CHESTERFIELD 63017
SHAIKUN,GERALD,LEE, R
4511 FOREST PARK
ST LOUIS 63108
SHATZ,BURTON,ALBERT, GE
10287 CLAYTON RD
ST LOUIS 63124
SHEFFIELD,WM,HART, PTH
135 W ADAMS
ST LOUIS 63122

SHEN,HANG,CHANG, R
6651 CHIPPEWA ST
ST LOUIS 63109
SHERMAN,WARREN,GARY, PD
10004 KENNERLY
ST LOUIS 63128
SHOBE,FRANK,OSCAR, P
1034 S BRENTWOOD BLVD STE 1160
ST LOUIS 63117
SILBER,SHERMAN,JAY, U
456 NO N BALLAS RD
ST LOUIS 63141
SILVER,BERND, OPH
211 NORTH MERAMEC
ST LOUIS 63105
SILVERBERG,CHAS, IM
10004 KENNERLY RD
SUITE 315
ST LOUIS 63128
SIMONS,PAUL,STEPHEN, PD
4570 AUDUBON
ST LOUIS 63110
SIMRIL,WAYNE,A, R
21 SOMERSET DOWNS
ST LOUIS 63124
SISK,JAMES,CASH, D
121 N BRENTWOOD BLVD
CLAYTON 63105
SKILLING,DAVID,M, PUD
610 S BERRY RD
ST LOUIS 63122
SKINNER,JOHN,SPALDING, IM
35 N CENTRAL
ST LOUIS 63105
SMIT,HERBERT,MAURICE, OTO
8724 W KINGBURY
ST LOUIS 63124
SOLOMON,FELIX,G, AN
11326 MOSLEY LANE
ST LOUIS 63141
SOMMER,ROSS,B, IM
1034 S BRENTWOOD ST
ST LOUIS 63117
SOTO,ALBERT,ARTURO, P
522 N NEW BALLAS RD
ST LOUIS 63141
SPECTOR,GENE,WM, R
4511 FOREST PARK AVE
ST LOUIS 63108
SPENO,ANGELO,ANTHONY, OM
1001 N HIGHWAY DRIVE
FENTON 63026
SPITZ,MILTON,ADOLPH, IM
1901 LINCOLN PK W
CHICAGO IL 60614
SPIVACK,ALAN,ROBT, IM
10511 OLD OLIVE ST RD
ST LOUIS 63141
SPOENEMAN,MARLIN,CARL, GP
4421 NE 25TH AVE
LIGHTHOUSE POINT FL 33064
SPRAUL,JAMES,H, OM
800 NO LINDBERGH
ST LOUIS 63166
STEIN,HARRY,JOS, GP
6917 W FLORISSANT
JENNINGS 63136
STEINER,ALEXANDER,J, PUD
141 N MERAMEC AVE STE 216
CLAYTON 63105
STEPHENS,WM,ALVIN, ORS
RT 3 BOX 141
KEHRS MILL RD
CHESTERFIELD 63017
STEWART,FRANCES,HELEN, OBG
7161 DELMAR BLVD
ST LOUIS 63130
STICKLE,ARTHUR,W, OPH
135 W ADAMS
KIRKWOOD 63122
STOHR,PAUL,EDWARD, NS
1035 BELLEVUE AVE
ST LOUIS 63117
STOLIAR,BRUCE, U
11115 NEW HALLS FERRY RD
FLORISSANT 63033
STUART,WALLACE, PDA
10000 HWY 366
CRESTWOOD 63126
STUEBNER,ROLAND,WM, GS
11964 ADORONO PLACE
SAN DIEGO CA 92128
SULLIVAN,WM,KIELY, AM
5407 D GRAY PLAZA
SCOTT AFB IL 62225
SULLIVAN,WM,WALLACE, IM
12166 BIG BEND BLVD
KIRKWOOD 63122
SUMER,CENGIZ,MUSTAFA, P
220 RUNNYMEDE DR
ST LOUIS 63141
SUMER,EMEL,AKTAN, CHP
220 RUNNYMEDE DR
ST LOUIS 63141
SUTTER,RICHARD,ANTHONY, DM
819 LOCUST ST
ST LOUIS 63101

TALABAN,RAYMUNDO,D, GS
703 W MAIN
FREDERICKTOWN 63645

TAN,CHAS,HUA-MIN, HEM
9293 WATSON RD
ST LOUIS 63126

TASHMA,SIGMUND,S, OR
904 DALKEITH LANE
ST LOUIS 63132

TEIBER,FREDERICK,WM, OM
38 FAIR OAKS
ST LOUIS 63124

THIELE,BELMONT,RODNEY, GS
4511 FOREST PARK
ST LOUIS 63108

TOMLINSON,WM,LOREN, GS
1851 CANDLEWICK DR
ST LOUIS 63131

TORIN,BERNICE,A, OBG
150 NO MERAMEC
ST LOUIS 63105

TREIMAN,ROBT,CRAGE, IM
7 RADNOR RD
ST LOUIS 63131

TRUEBLOOD,ALVA,C, OBG
325 N KIRKWOOD RD
ST LOUIS 63122

TRUNKO,LEO, IM
1900 TELEGRAPH RD
ST LOUIS 63125

TSIFUTIS,ARGYRIOS,A, PD
2915 TRAFALGAR DE
TOWN AND COUNTRY 63131

TURNER,JAMES,K, PD
4570 AUDUBON AVE
ST LOUIS 63110

*TURNER,TIMOTHY,T,
12135 ROYAL VALLEY DR
CREVE COEUR 63141

ULETT,PEARL,C LAWRENCE, CHP
801 S BRENTWOOD BLVD
ST LOUIS 63105

VALACH,FRANK,JAMES, OBG
2821 N BALLAS RD
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VATTEROTT,PAUL,BARTO, GP
10300 ST CHARLES ROCK RD
ST ANN 63074

VENTUS,MANUEL,ALCALA, ABS
8321 N BROADWAY
ST LOUIS 63147

VIAMONTES,JORGE,ALBERTO, P
777 S NEW BALLAS RD
ST LOUIS 63141

VICKAR,GARRY,MARTIN, P
1245 GRAHAM RD RM 506
FLORISSANT 63031

VIERS,WAYNE,ALLEN, OTO
135 W ADAMS
ST LOUIS 63122

VILAR,PIO,MACTAL, GS
4211 BAYLESS
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VIRAGHATY,JULIUS,GYULA, AN
OLD STATE RD
RR BOX 58
GLENCOE 63038

VITALE,ANTHONY,J, GS
7150 NATURAL BRIDGE RD
ST LOUIS 63121

VITALE,NICHOLAS,S, ABS
614 COACHLIGHT LANE
HAZELWOOD 63042

VOLLMAR,LEWIS,C, O
10004 KENNERLY RD
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VOTAW,ROBT,EDWARDS, OTO
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WALTER,WM,LEE, OPH
135 W ADAMS
ST LOUIS 63122

WALTERS,HENRY,WARE, D
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WALTERS,RICHARD,COBURN, O
7511 BIG BEND BLVD
WEBSTER GROVES 63119

WALTHER,ROY,A, OBG
9440 MIDLAND
ST LOUIS 63114

WARD,ROBT,LEE, GP
11002 THOUSAND OAKS DR
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MANCHESTER 63011

WEBER,SOL, IM
827 S HANLEY RD
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1033 MANCHESTER RD
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SUITE 411
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4989 BARNES HOSP PLAZA
SUITE 3103
ST LOUIS 63110

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ST LOUIS 63108

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WHITENER,MILES,CLARK, IM
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ST LOUIS 63114

WHITENER,PAUL,ROWLAND, GP
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3 TUSCANY PARK
CLAYTON 63105

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500 NW PLAZA
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GANNON SHOPPING CENTER
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FLORISSANT 63031

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ST LOUIS 63139

YAZDI,ATAOLLAH,MOSLEH, OBG
16 HAMPTON VILLAGE PLAZA
ST LOUIS 63109

ZEIGLER,JOS,MARTIN, R
1840 WOODTIN COURT
ST LOUIS 63122

ZIMMERMAN,HERBERT,B, CD
100 N EUCLID
ST LOUIS 63108

ZWIRN,HANS,BENJ, PD
493 ST FRANCOIS
FLORISSANT 63031

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1331 SPUR DR
MARSHFIELD 65706

MACDONNELL,THOS,M, FP
1331 SPUR RD
MARSHFIELD 65706

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DAVIS,C,BRAXTON, CD
824 S ADAMS
NEVADA 64772

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PLEASANT HILL 64080

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111 S LEXINGTON
HARRISONVILLE 64701

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BATES COUNTY HOSP
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BUTLER 64730

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STATE BANK BLDG
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11490 KINGSWAY
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**Oct. 25-27, 1978**
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MSMAA FALL CONFERENCE
**Nov. 1-2, 1978**
Ramada Inn, St. Joseph

MSMA ANNUAL SESSION
**April 19-22, 1979**
Chase-Park Plaza, St. Louis

AMAA ANNUAL CONVENTION
**July 22-25, 1979**
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**TENTH DISTRICT:** Bollinger,** BUTLER-RIPLEY WAYNE-CARTER, CAPE GIRARDEAU, DUNKLIN MINERAL AREA (Iron, Madison, Reynolds, St. Francois Washington), Pemiscot,* Perry-Ste. Genevieve,* SEM (Mississippi, New Madrid, Scott, Stoddard).*

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* No organized Auxiliary.
** No Medical Society.

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| Mrs. A. W. McAlester* (Jackson) | 1930-31 |
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| Mrs. David S. Long* (West Central) | 1932-33 |
| Mrs. Hudson Talbot (St. Louis City)<br>St. Matthew Manor, 227 Brown's Lane, Louisville, Ky. 40207 | 1933-34 |
| Mrs. W. H. Goodson* (Clay) | 1934-35 |
| Mrs. M. Pinson Neal* (Boone) | 1935-36 |
| Mrs. Walter C. Kirschner* (St. Louis City) | 1936-37 |
| Mrs. Charles H. Werner* (Buchanan) | 1937-38 |
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| Mrs. W. E. Koppenbrink, Sr. (Lafayette-Ray)<br>1303 Main, Higginsville 64037 | 1946-47 |
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| Mrs. W. Carey Cheek (Greene)<br>1535 E. Meadowmere, Springfield 65804 | 1951-52 |
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| Mrs. Frank J. Valach (St. Louis County)<br>4 Nassau Circle, Creve Coeur 63141 | 1971-72 |
| Mrs. Keith D. Jones (Johnson)<br>711 S. Holden, Warrensburg 64093 | 1972-73 |
| Mrs. Charles R. Willman (Buchanan)<br>2105 Lovers Lane, St. Joseph 64505 | 1973-74 |
| Mrs. George J. Lytton (Jackson)<br>Hastings Regional Medical Center,<br>Hastings, Neb. 68901 | 1974-75 |
| Mrs. William R. McPhee (Clay)<br>1205 W. 76th, Kansas City 64114 | 1975-76 |
| Mrs. George P. Wilson (Boone)<br>918 Westwinds Dr., Columbia 65201 | 1976-77 |
| Mrs. W. Jack Stelmach (Jackson)<br>5252 Sunset Dr., Kansas City 64112 | 1977-78 |

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* Deceased.

** National President.

# Roster of MSMA Auxiliary Members by Society

## BOONE COUNTY
## (Columbia 65201)

Allen, Mrs. Joseph, 5813 St. Charles Rd
Allen, Mrs. Robert, 2007 S. Country Club Dr
Allen, Mrs. William, 508 W. Briarwood La.
Allen, Mrs. William Corwin, 801 Edgewood
Almond, Mrs. Carl, 213 W. Blvd. South
Alyea, Mrs. James, 379 Crown Pt
Anderson, Mrs. Philip C., Rt 4
Anderson, Mrs. Thomas R., 5 McGregor La
Arnold, Mrs. Richard C., 814 Yale
Asel, Mrs. Norman, 112 S. Glenwood
Baker Mrs. James M., Rt. 4
Baker, Mrs. Sherwood A., 2620 Walther Ct
Barbee, Mrs. Charles W., 3816 Cedar La.
Barbero, Mrs. Guilio J., 408 S. Glenwood
Beck, Mrs. Marcus R., 601 Rock Creek
Black, Mrs. Samuel, 300 S. Glenwood
Blackwell, Mrs. Charles, 3408-D Woodrail Terr.
Bourgeois, Mrs. Curtis, Box 118, Rocheport 65279
Bradshaw Mrs. William, 3408 Woodrail Terr.
Bucher, Mrs. William C., Rt. 3, Box 451
Bumgarner, Mrs. Roger W., 707 Timberhill Rd.
Burns, Mrs. Thomas W., 310 E. Brandon Rd.
Bynum, Mrs. William, 3009 Skylark Dr
Chalkley, Mrs. Judson, 614 W Stewart Rd.
Cheek, Mrs. Charles W., Rt. 4, Box 76A
Cochran, Mrs. Donald, 112 Sappington
Cohen, Mrs. Harry B., 111 Alhambra Dr.
Colwill, Mrs. Jack, Countryshire, Rt. 5
Cooper, Mrs. Maurice, 1000 Wayne Rd.
Cope, Mrs. James, Rt. 1, Rocheport 65279
Crowley, Mrs. William J., 806 Crestland
Cupp, Mrs. Gerald V., 4104 DeFoe Dr.
Davis, Mrs. William, 600 Rothwell Dr.
Denninghoff, Mrs. James C., 1006 Vassar
Eggers, Mrs. G William, 1005 Cowan Dr.
Esterly, Mrs. James, Rt. 1, Box 253, Ashland 65010
Ferneau, Mrs. James, 1040 Queen Ann Dr.
Foote, Mrs. Jerry E., Rt. 4
Frazier, Mrs. Robert E., 367 Crown Point
Fuchs, Mrs. George J., 201 W. Brandon Rd.
Garrett, Mrs. Glen, 102 E. Brandon Rd.
Garrotto, Mrs. Lewis, 814 Hulen Dr.
Gaston, Mrs. Lamont, 920 Edgewood
Griffin, Mrs. William T., 822 Greenwood Ct.
Hardwicke, Mrs. Henry, Walnut Hill Farm, Ashland 65010
Harris, Mrs. Hugh S., Jr., 801 Cowan Dr
Harris, Mrs. Robert J., 2505 E Broadway
Hart, Mrs. William, 109 Sappington Dr
Henstorf, Mrs. Harold, 1815 Ridgemont
Hickcox, Mrs. John P 2616 Rollins Rd
Holmes, Mrs. Richard, 1111 Lakeside Dr
Howitt, Mrs. Harvey, 2601 Summit Rd
Hubbell, Mrs. Ira G., 302 McNab Dr.
Husain, Mrs. Syed A., 2602 Johnson Dr.
Ide, Mrs. Carl, 1008 Bourn Ave.
Jackson, Mrs. Robert L., 1103 W. Stewart Rd.
Johnson, Mrs. Richard E., 129 Lindell Dr
Joseph, Mrs. Donald, 1201 Parkridge
Kaplan, Mrs. Michael F., 1409 Overhill Rd.
Keown, Mrs. Kenneth, 402 Westmount
Klachko, Mrs. David, 407 Westwood
La Chance, Mrs. Leopold, P.O Box 121F, Centralia 65240
Ladenson, Mrs. Roland, 704 Westmount
Landhuis, Mrs. Leo R., 2911 Scott Rd.
Leech, Mrs. Charles A., 815 W Stewart Rd.
Lepper, Mrs. Claude K., 2016 Ivy Way
Lepper, Mrs. Sidlee W., Rt. 3, Box 42
Litton, Mrs. Lynn D., 3615 I-70 Dr. S.W
Litwiller, Mrs. Raymond W., 1312 W Broadway
Lobeck, Mrs. Chas. C., Rt 4, Hillcreek Acres
Logue, Mrs. John, 912 Crestland
Lohmar, Mrs. Roland E., Rt. 5, Box 335
Marienfeld, Mrs. Carl, Rt 1, Ashland 65010
McCord, Mrs. Scott, 410 Springvalley Rd.
McElroy, Mrs. Glenn, 3416 Woodrail Terr
Miller, Mrs. LeRoy, 32 Bingham Rd.
Millikan, Mrs. Larry E., 203 Orchard Ct.
Mitchell, Mrs. Frank, 2200 Danforth Ct
Mitchell, Mrs. Lynn D., 3612 Arbor Dr.
Monroe, Mrs. Dean, 2214 Ridgefield Rd.
Mosby, Mrs. Larry D., 107 E Brandon
Mullins, Mrs. Maurice, 608 West Blvd., So.
O'Keefe, Mrs. Stephen, 312 Rothwell Dr
Orth, Mrs. D. Gerald, 2404 Beachview Dr
Overholser, Mrs. Milton, 110 E. Brandon Rd
Parker, Mrs. Brent M., 2607 Luan Ct.
Perez-Mesa, Mrs. Carlos, 609 Stewart Rd.
Pfefer, Mrs. Leland U., 2409 Buff Blvd.
Pickard, Mrs. Clarence, 1213 Parkridge Dr.
Pickens, Mrs. James M., 304 Longfellow
Pingleton, Mrs. William, 113 Tracy Dr.
Politte, Mrs. Lenard, Rt. 1, Cedar Grove
Quayle, Mrs. William H., 516 Stalcup
Rall, Mrs. Kenneth, 1121 Danforth Dr.
Ridenhour, Mrs. C. E. Gene, Rt. 1, Cedar Grove
Rodgers, Mrs. Elrie, 202 S. Glenwood
Rosenholtz, Mrs. Mitchell, 103 Longfellow
Ross, Mrs. Gilbert, Rt. 1
Russell, Mrs. Garth, 1210 W. Broadway
Silver, Mrs. Donald, Rt. 4, 1050 W Covered Bridge Rd.
Smith, Mrs. J. Ned, Jr., 701 W. Boulevard S.
Soha, Mrs. Joseph, Jr., 14 Arbor Dr.
Sosebee, Mrs. Lee, 2709 Malibu Ct.
Spurgeon, Mrs. Milo J., 404 Edgewood Ave.
Stephenson, Mrs. Hugh E., 5 Danforth Circle
Stewart, Mrs. W. B., 1401 Ridgemont
Stoy, Mrs. Robert, 811 Canterbury Dr.
Stradford, Mrs. H. Todd, 1444 S. El Chaparral Ave
Struessel, Mrs. Kenneth, 3717 Woodridge Ct.
Thomas, Mrs. Robert M., 2219 Danforth Ct.
Tully, Mrs. Richard, 1106 Lakeshore Dr.
Vogel, Mrs. Curt M., 3707 Woodridge Ct.
Waggoner, Mrs. Charles, 712 Hilltop Dr.
Watson, Mrs. Trevor F., 2319 Bluff Blvd
Wilson, Mrs. George P., 918 Westwinds Dr.
Wilson, Mrs. John, 1117 Woodhill Rd.
Windmiller, Mrs. M. Eugene, 106 Parkview Dr.
Winnacker, Mrs. John L., 609 Thilly

## BUCHANAN COUNTY
## (St. Joseph)

Acuff, Mrs. Robert P., 3015 Miller Rd. 64506
Andres, Mrs. Edward, 2323 NW Ext. Blvd. 64506
Baker, Mrs. W. C., 708 S. First, Savannah 64485
Beck, Mrs. Paul, 3216 Coronado 64505
Beheler, Mrs. Edward M., 8 Stonecrest Terr. 64506
Benson, Mrs. Scott C., 2630 Ashland Ave. 64506
Berney, Mrs. Francis J., 1225 N. 10th 64501
Bristow, Mrs. Robert B., 1610 Ashland 64506
Bryant, Mrs. Sydney L., 1805 N. 33rd 64506
Butler, Mrs. E. F., 3110 Douglas 64506
Callman, Mrs. George, P. O. Box 655, Farleigh Station 64506
Carle, Mrs. Rachel, 2707 N. 26th 64506
Carpenter, Mrs. G. Tyson, 2612 Indian Trail 64506
Chiarottino, Mrs. Joseph F., 13800 N. E. 12th, Apt. 203, Bellevue, WA 98008
Christ, Mrs. Martin H., 414 Benton Dr. 64504
Corder, Mrs. Robert, Jr., 4302 W. Haverhill Dr.
Cox, Mrs. John P. Amazonia 64421
Craig, Mrs. Owen W D., 3408 Colony Sq. E. 64506
Du Mont, Mrs. Clement, 1905 Francis 64501
Dyer, Mrs. Gary A., 802 N. 25th 64506
Escobar, Mrs. Nelson, 1 Fieldcrest 64506
Fisher, Mrs. Joseph L., 2309 Ashland 64506
Forgrave, Mrs. John R., 2611 Cornell 64506
Forman, Mrs. George W., 2412 Ashland 64506
Fox, Mrs. Gerald, 2106 Lovers La. 64505
Garrison, Mrs. David L., Rt. 2, Box 402 64505
Gondring, Mrs. William H., 17 Eastwood Dr. 64506
Grimes, Mrs. Manning E., 815 N. Noyes Blvd. 64506
Hayes, Mrs. Paul W., 610 N Noyes Blvd. 64506
Herman, Mrs. Allen I., 1909 N. 32nd 64506
Howden, Mrs. T. L., 2723 Francis 64501
Ide, Mrs. Lucien W., 1416 N 25th 64506
Inocencio, Mrs. Eddie, 4322 S Stonecrest Cir. 64506
Jimenez, Mrs. Jose, Box 263, 2222 Edgewater 64506
Kieber, Mrs. R. W., 1915 N. 33rd 64506
Knepper, Mrs. Paul, 2002 Ashland 64506
Marston, Mrs. F. James, 4230 Karnes Rd. 64506
Martin, Mrs. John, 9 Lindenwood La. 64505
McDaniel, Mrs. John R., 1808 N. 29th 64506
McDonald, Mrs. Wallace, 29 Ridgeland Rd. 64505
McDonald, Mrs. Wilbur P., 6 Country Club Rd. 64505
McMillen, Mrs. James, 3610 W Colony Sq. 64506
Meriwether, Mrs. Don R., 1826 Lovers La. Terr. 64505
Moen, Mrs. Berwyn H., 2214 Carper Dr. 64506
Mothershead, Mrs. John L., 2630 Farleigh Terr. 64506
Mullican, Mrs. Charles N., 2103 Lovers La. 64505
Murphy, Mrs. James, 4334 Stonecrest Dr. 64506
Ness, Mrs. Carl K., 8 Lindenwood La. 64505
O'Connor, Mrs. William B., 2316 N. 22nd 64505
Paulson, Mrs. Gordon, 1820 Ashland Ave.
Peterson, Mrs. Harold E., 2903 Frederick 64506
Pfeffer, Mrs. Robert, 1915 N 29th 64506
Potter, Mrs. Caryl A., 1 Pine Rd. 64505
Prokop, Mrs. Joseph R., 29 Stonecrest 64506
Raphel, Mrs. Jose, 1111 49th-Terr. 64506
Redmond, Mrs. William, 3102 Jule 64501
Riddell, Mrs. Richard V., 2610 Indian Trail Dr. 64506
Rogers, Mrs. John T., 2502 Ashland 64506
Rosenthal, Mrs. Irwin, 5007 Stonecrest Terr. 64506
Rost, Mrs. William B., 2221 Northwest Ext. 64506
Saferstein, Mrs. T. H., 2903 Sherman Ave. 64506
Senne, Mrs. Herbert C., 1308 S. Noyes 64507
Senor, Mrs. Earl, 2920 Renick 64507
Shah, Mrs. Narendra N., 4313 Stonecrest Dr. 64506
Shevlin, Mrs. Charles F., 840 N. 25th 64506
Silliman, Mrs. York E., 2715 Francis 64501
Sklenar, Mrs. Donald E., 3910 N 71 Highway 64506
Smith, Mrs. Clifton, 2821 Ashland 64506
Stallard, Mrs. Donald J., 1417 N. 25th 64506
Stevens, Mrs. Edward, 2923 Joslin La. 64506
Stuber, Mrs. Robert R., 4208 Miller Rd. 64505
Sweiger, Mrs. James, Rt. 3, Box 163, Plattsburg 64477
Thompson, Mrs. F. Gregg, III, 2714 Ashland 64506
Tobin, Mrs. Robt. F., 9 Fieldcrest 64506
Valera, Mrs. Salvador, 4110 Haverhill 64506
Wadlow, Mrs. Ernest E., 1401 N 42nd 64506
Waggoner, Mrs. Sharon E., 5820 S. 3rd 64504
Weed, Mrs. Randall W., 1821 Clay 64501
Whitsell, Mrs. Ora Earl, 2306 Sacramento 64507
Willman, Mrs. Charles, 2105 Lovers La. 64505
Wolanski, Mrs. Eugene G., 4309 Stonecrest Dr. 64506
Young, Mrs. Thomas J., 2300 N.E. Parkway 64506

## BUTLER-RIPLEY-WAYNE-CARTER COUNTIES
## (Poplar Bluff 63901)

Andrus, Mrs. Don, Rt. 7, Box 290
Barbour, Mrs. Marvin R., Rt. 1
Brookreson, Mrs. A. Davis, 1 Honeysuckle La.
Caldwell, Mrs. Fred, 2008 King Rd.
Christy, Mrs. John, 1708 Sylvan Dr.
Fraser, Mrs. R. A., 820 N. Main
Hansbrough, Mrs. Eugene T., Lurlyn Rd.
Hecker, Mrs. Joseph E., 2019 Woodhaven
Hoja, Mrs. W. Alexander, Rt. 7, Box 273
Hunt, Mrs. John, 3600 Wilcox
Laatsch, Mrs. Robert H., 13333 Meadow La.
Ladyman, Mrs. George H., 1403 Lurlyn
McLane, Mrs. Jerry F., 2107 Jackson Rd.
Parker, Mrs. Arthur C., Jr., 708 Selma
Ramirez, Mrs. Ricardo, 2022 King Rd.
Ruff, Mrs. T. Eugene, 1411 Rosedale
Suvan, Mrs. Rangsan, 2609 Holly Hill Dr.
Till, Mrs. Bennie, 2806 Shady Lane
Tinsley, Mrs. Austin R., Rt. 1, Williamsville 63967
Traxel, Mrs. William L., 41 Tomaro Oaks
Tuma, Mrs. A. T., 1601 Big Bend Rd.
Turner, Mrs. Kirby, Rt. 2, Box 359-A
White, Mrs. Barry B., 2521 Park Pl.
Wood, Mrs. Tom, 2008 Schweitzer Dr.
Woodson, Mrs. William, 2021 Meadows Rd.

## CALLAWAY COUNTY
## (Fulton 65251)

Durst, Mrs. Henry, 1 Ivy La.
Groce, Mrs. George, 1 Bartley La.
Jackson, Mrs. Vernon, 3 Staff Circle
Osbourn, Mrs. Richard A., 803 Bradley La.
Parulekar, Mrs. Dilip G., 805 Groce Pl.
Ritterbusch, Mrs. James K., 2 Bartley La.
Williams, Mrs. Paul, 403 Douglas Ave.
Wood, Mrs. George F., 1700 Plaza Dr.

## CAPE GIRARDEAU COUNTY
## (Cape Girardeau 63701)

Adams, Mrs. Riley, Rt. 2, Twin Lakes
Asher, Mrs. Kenneth, 666 Strawberry La., Jackson 6375
Bahn, Mrs. Charles, 2418 Brookwood
Blankenship, Mrs. Dale, 1420 Sylvan La.
Bowman, Mrs. Kirk, 1965 Robinhood Circle
Burford, Mrs. Edwin K., 2424 Terry Hill
Campbell, Mrs. Edward, 1100 N. Henderson
Chapman, Mrs. Jean Allen, 1703 W. Cape Rock Dr.
Coulson, Mrs. Forest H., Rt. 1, Box 154, Whitewater, Mo 63785
Cozean, Mrs. Charles, 1548 Oak Lei
Crowe, Mrs. John, 1000 N Henderson

Oinkins, Mrs. James, 1235 Sailer Circle
Oowney, Mrs. Patrick, 321B Kage Hills Dr.
Ozur, Mrs. James, #2 Schonhoff La.
Edwards, Mrs. Don, 2530 Jonquil La.
Eller, Mrs. Gordon W., Rt. 2, Box 534C, Twin Lakes
Elrod, Mrs. Dennis B., 2500 Fairlane
Herbert, Mrs. Charles, 64B Sylvan La.
Holcomb, Mrs. John K., Rt. 1
Horn, Mrs. Paul, 1909 Huntington
Hunt, Mrs. Robert S., 5 Bienville
Johnson, Mrs. Earl Wayne, 1044 N. Henderson
Johnson, Mrs. E. D. Jack, 11 Dunmaine
Jones, Mrs. David, Box 127
Jung, Mrs. Christopher, Rt. 2, Twin Lakes
Jung, Mrs. Marshall, Box 427, Illmo (Mo.) 63754
Kasten, Mrs. Melvin C., 1209 Sailor Circle
Kim, Mrs. Wayne, 1713 Brookwood
Kinder, Mrs. James, Rt. 1, Box 135
Kinder, Mrs. Jerry L., 2426 Brookwood
Koldys, Mrs. Kenneth, 2460 Fairview
Kratz, Mrs. Paul, 1720 Cecilia
Lovinggood, Mrs. Thomas, 25D5 Allendale Dr.
Magaletta, Mrs. George, 957 Rodney Dr.
McDonald, Mrs. Eugene, 930 Jackson Tr.
McGinty, Mrs. Charles, 2B19 Gordonville Rd.
Oehler, Mrs. William, 1001 N. Henderson
Otto, Mrs. Thomas, 511 Alta Vista
Parsons, Mrs. D. L., Chateau Oaks
Rapp, Mrs. Harold, 1011 N. Henderson
Rawlins, Mrs. Fred, 1607 Bertling
Ridings, Mrs. Harold, 6 Sylvan La.
Riddings, Mrs. Ray, Rt. 2
Ritter, Mrs. Carl, 616 Peironnet
Ritter, Mrs. C. J., Schonoff La.
Ritter, Mrs. Raymond A., Jr., 24DB Terry Hill
Ritter, Mrs. Raymond A., Sr., 2542 Allendale Dr.
Scharphorn, Mrs. James, 8ox 444
Seabaugh, Mrs. Loy, B11 E. Rodney
Shoss, Mrs. Milton, 1222 W. Cape Rock Dr.
Sides, Mrs. Stanley, 2014 8eth Dr.
Sparkman, Mrs. Thomas, 1629 Oxford Dr.
Talbert, Mrs. Clifford R., 2747 Jewel Dr.
Terry, Mrs. James W., 2122 Woodhaven
Tygett, Mrs. Joe, 2112 Woodhaven
Whitten, Mrs. Stephen, 3132 Lakewood Dr.
Wilson, Mrs. Charles, Oak Lei Dr.

## CLAY COUNTY
### (Kansas City)

Allen, Mrs. Louis, 501 S. Woodland Dr. 6411B
Armstrong, Mrs. Jay H., 4B12 Black Swan Dr., Shawnee Mission KS 66216
Arst, Mrs. Herbert E., 1201 N.E. 81st 6411B
Balhuizen, Mrs. John, 600 N.W. 42nd Terr. 64116
Bates, Mrs. G. Comer, 102 N.E. 43rd 64116
Beaman, Mrs. Richard, 7107 Eastside Dr., Parkville 64152
Benson, Mrs. Larry E., 36D0 Appletree La. 64119
Boone, Mrs. Daniel C., 5B0D N. Grand 64116
Bowles, Mrs. Richard, 414 N. Ridge, Liberty 6406B
Burk, Mrs. E. K., 630 N.W. 42nd Terr. 64116
Castillo, Mrs. Michael E., 4504 N.W. 79th Terr. 64151
Chastain, Mrs. Maurice W., 3 N.E. 47th 64116
Chatkupt, Mrs. Suthon, 2002 W. Norma Ct. Excelsior Springs 64024
Chiles, Mrs. David R., 4D5 Maple, Smithville 640B9
ooper, Mrs. 8arry R., 5431 Mission Dr., Shawnee Mission, KS 6620B
ooper, Mrs. Gary D., 994B N. Charlotte 64155
remer, Mrs. William J., 7241 N. Indiana 64119
el Muro, Mrs. F., 5902 Poplar Dr. 6411B
ernoncourt, Mrs. John, 603 Quincy, Smithville 64089
evine, Mrs. Mark W., 6910 Overhill Rd., Shawnee Mission, KS 6620B
olan, Mrs. C. Terrance, Rt. 2, Smithville 640B9
unham, Mrs. Robert H., Rt. 29 64165
y-Ragos, Mrs. Ramon R., 1D106 N.W. 74th 64152
dwards, Mrs. Theodore F., 512 N.W. 43rd Terr. 64116
akhoury, Mrs. Donald A., 4332 N. Central 64116
anders, Mrs. Virgil E., 2022 W. 91st, Leawood, KS 662D6
auer, Mrs. Robert J., 525 N.W. 43rd Terr. 64116
agan, Mrs. John C., 32D5 Shady Lane Dr. 64119
edges, Mrs. Richard C., 1017 Southwind Dr., Excelsior Springs 64024
enry, Mrs. Joseph E., 1005 Brentwood Cir. 64112
odge, Mrs. Robert H., 22D4 N.E. 39th 64116
e, Mrs. Frank H., 6700 W. 66th Terr., Shawnee Mission, KS 66202
elly, Mrs. Joseph G., 7025 N. Asken, Gladstone 6411B
rkland, Mrs. Jerry, Rt. 2, Kearney 64D60
enzi, Mrs. Donald E., 924 S. Woodland Dr. 6411B
nning, Mrs. R. James, 3B01 N. Central 64116
timer, Mrs. Walter N.A., 4915 N. Kansas 64119
slie, Mrs. Stephen A., 9704 N.W. 75th Terr. 64152
a, Mrs. Aram, 1001 Miss Belle, Excelsior Springs 64024
ttlejohn, Mrs. Robert 5215 W. 63rd Terr., Shawnee Mission, KS 6620B
cCluggage, Mrs. Newt C., 5921 High Drive, Shawnee Mission, KS 6620B
McCormick, Mrs. James E., 309 Northcrest Dr. 64116
McElroy, Mrs. Michael B., 3B01 W. 57th Terr., Fairway, KS 66205
McPhee, Mrs. William R., 1205 W. 76th 64114
Nourbakhsh, Mrs. Mahmoud, Box B39, Platte City 64079
Parker, Mrs. Robert H., 5204 N.W. B2nd Terr. 64151
Patterson, Mrs. Carroll D., 626 N.W. 42nd Terr. 64116
Pileggi, Mrs. Felix A., 424 N.W. Briarcliff Rd. 64116
Prather, Mrs. William, 221 Hickory Cir., Gladstone 64118
Revare, Mrs. Paul, 3245 Chippewa Dr. 64116
Robinson, Mrs. Van M., 415 N.W. Briarcliff Ct. 64116
Schertz, Mrs. Truman, 42B N.W. Briarcliff Rd. 64116
Schutz, Mrs. John P., 304 Virginia, Excelsior Springs 64024
Slaughter, Mrs. Carl, 1001 N. Woodland 6411B
Smith, Mrs. Charles H., 6203 Circle Dr. 6411B
Somoza, Mrs. Jose, 15 N.E. Hill 64116
Soper, Mrs. William, 1006 Forest La., Liberty 6406B
Spelman, Mrs. Arch E., 500 N. Bridge, Smithville 640B9
Sportsman, Mrs. Weldon L., Rt. 2, Smithville 640B9
Stratman, Mrs. Clarence A., 405 N.W. 53rd 6411B
Thomas, Mrs. Anthony, 940 N. Woodland Dr. 6411B
Triplett, Mrs. Daniel A., 936 Scott Dr., Liberty 64D6B
Tumanut, Benesto, 3B14 N.W. 60th 64151
Underwood, Mrs. J., III, 4222 N. Grand 64116
Vilmer, Mrs. Charles E., 6209 W. 65th, Shawnee Mission, KS 66202
Vilmer, Mrs. Stephen E., 6312 W. 67th Terr., Shawnee Mission, KS 66204
Wald, Mrs. Donald, 160B N.E. 69th 6411B
Waterman, Mrs. Franklin M., 420 Glendale Rd., Liberty 6406B
Weide, Mrs. Allan, 4705 N.W. B1st Terr. 64151
Werner, Mrs. Dan F., 4609 N. Main 64116
Werner, Mrs. Franklin C., Rt. 1, Box 479-B, Liberty 64D6B
Williams, Mrs. R. D., 6533 Rainbow, Shawnee Mission, KS 6620B
Withrow, Mrs. John B., 3925 N. Main 64116
Workman, Mrs. Charles E., 6609 Milhaven Dr., Shawnee Mission, KS 66202
Wright, Mrs. Earl, B203 N. Oregon Dr. 64151

## COLE COUNTY
### (Jefferson City 65101)

Allen, Mrs. James E., 846 Crestmere
8eldon, Mrs. E. A., 2124 Lowell
Bowe, Mrs. Ted, 25D3 Schellridge Dr.
8oyer, Mrs. Peter, 314 Old Gibler
Bregant, Mrs. Robert, 3435 Country Club Dr.
Busby, Mrs. William E., 320 Riverview Dr.
Cooper, Mrs. Charles W., Rt. 3, Box 469, Holts Summit 65043
Courter, Mrs. Larry, Rt. 4
Cox, Mrs. William A., 812 Swifts Highway
Doerhoff, Mrs. Alan, Shepherd Hills
Dorris, Mrs. Richard P., 1611 Ridgewood
Exon, Mrs. C. Stuart, 916 Boonville
Falzone, Mrs. John, 321 Sterling Price Rd.
Garner, Mrs. Lynn M., 403 Meier Dr.
Garner, Mrs. Royal, 123-B Brookdale
Giffen, Mrs. Lawrence E., 1915 Hayselton Dr.
Gordon, Mrs. James, 60D Boonville Rd.
Gove, Mrs. Herman S., 712 Broadway
Guhleman, Mrs. Henry V., Jr., 201B Greenberry Rd.
Gurnee, Mrs. Landon H., 2941 Country Club Dr.
Handler, Mrs. Fred P., 614 Boonville Rd.
Hauser, Mrs. Robert J., Schott Rd.
Hughes, Mrs. Derrick, 4104 Rollins Rd., Columbia 652D1
Kanagawa, Mrs. Harold Hajime, B16 Houchin
Kanagawa, Mrs. Harold K., 314 Crest Dr.
Kelly, Mrs. Marshall W., 1916 Greenberry Rd.
Klebba, Mrs. Larry 8., 3300 Country Club Dr.
Krautman, Mrs. John, 10D0 Fairmont
Leslie, Mrs. James T., Jr., 1B24 8rookside Blvd.
Loyd, Mrs. Earl L., Rivera Heights, Holts Summit 65043
Matthews, Mrs. John I., 1314 Moreau Dr.
McKnelly, Mrs. William V., 1106 Lee
Meier, Mrs. Francis X., 1913 Hayselton Dr.
Meinershagen, Mrs. Charles W., 111 Forest Hill
Ossman, Mrs. Julian A., 2407 W. Main
Russell, Mrs. Joseph P., 1717 Greenberry Rd.
Ryan, Mrs. Thomas J., 1BD4 8rookside
Schmidt, Mrs. Jerome H., 806 Boonville
Schokker, Mrs. Johannes, 3463 Hobbs La.
Sennott, Mrs. John Stephen, 706 Earl Lee
Shull, Mrs. G. Donald, 1925 Hayselton Dr.
Siu, Mrs. Kenneth C., 1D09 Fairmount Blvd.
Stauffer, Mrs. Harry Beach, B30 8oonville Rd.
Stauffer, Mrs. Larry K., 2510 Schellridge
Stephens, Mrs. Sara, 1B07 Sherrick Dr., Apt. A
Stricker, Mrs. Harold C., Rt. 5, Zion Rd.
Su, Mrs. Philo S., 311 Elm Tree Dr.
Sugarbaker, Mrs. Everett D., 2113 W. Main
Summers, Mrs. Joseph S., Jr., 2312 W. Main
Tanner, Mrs. Robert H., 191D Greenberry Rd.
Taylor, Mrs. Leon A., 1104 W. Main
Tietjen, Mrs. Fred C., 2503 Green Tree Rd.
Van Vranken, Mrs. Eugene E., 2037 Tower Dr.
Wallace, Mrs. John K., 220 Ridgeway
Wankum, Mrs. Robert, 505 Schellridge Rd.
Watts, Mrs. Byron Edward, 2937 Valley View Terr.
Werth, Mrs. Joseph A., 325 Old Gibler Rd.
Westhoff, Mrs. O. Douglas, 2612 Schellridge Rd.

## COOPER COUNTY
### (Boonville 65233)

Abele, Mrs. William A., Krohn Or.
Avery, Mrs. Willard B., 10 Oak Valley Rd.
Hata, Mrs. Daikichi, 7 Morningside Dr.
Humphreys, Mrs. Edward T., 1123 Third St.
Stuart, Mrs. Byron M., 910 Shamrock Terr.
Winn, Mrs. George W., 607 Poplar

## DUNKLIN COUNTY
### (Kennett 63857)

Cash, Mrs. Charles R., 215 Teaco Rd.
Cheng, Mrs. Tuan-Chow, 1017 Kenwood Dr.
Dunmire, Mrs. George, 504 S. Baker Dr.
English, Mrs. W. D., Cardwell 63B29
Huang, Mrs. J. S., 1609 S. Lincoln Cir.
Legan, Mrs. John K., 617 Butler Dr.
Manubay, De Teresita I., M.D., 204 W. Linden Cir.
Miltenberger, Mrs. Paul C., 705 W. Washington
Morehead, Mrs. William E., 505 N. Beckwith, Malden 63B63
Palenski, Mrs. R. L., Hornersville 63855
Pu, Mrs. Pin H., 1105 W. Eighth
Rigdon, Mrs. John, 201 Westgate Ave.
Sinasa, Mrs. Surat, 1624 N. Lincoln Cir.
Soonattrakal, Mrs. Withiska, 1616 W. Washington
Tarver, Mrs. Quinton, 1004 W. Washington
Wilson, Mrs. L. C., 915 S. Jackson
Zimmerman, Mrs. Joe A., 1105 White Oak Pl.

## FRANKLIN-GASCONADE-WARREN COUNTIES

Allen, Mrs. Jerry H., B07 E. First, Washington 63090
Baker, Mrs. Donald, 900 Clearview Dr., Union 63084
8onney, Mrs. Samuel C., 2 Southpoint Pl., Washington 63090
8ozzo, Mrs. Raymond J., 6 Catawba Pl., Washington 63090
Brenner, Mrs. Paul A., 108 W. Washington, Owensville 65066
Eisenmann, Mrs. Benjamin B., New Haven 6306B
Farrell, Mrs. S. L., Rt. 2, Washington 63090
Hoelscher, Mrs. H. F., Hickory Haven, Warrenton 633B3
Muench, Mrs. Ludwig O., 2004 E. 3rd, Washington 6309D
Richardson, Mrs. G. A., 1 East Lane, Union 63084
Schmidt, Mrs. Charles, Box 143, Gerald 63067

## GRAND RIVER COUNTIES
### (Caldwell, Carroll, Livingston, Grundy Davies, Harrison, Linn, Mercer & DeKalb Counties)

Bohnsack, Mrs. Ralph, 635 Skyline Dr., Brookfield 64628
Broyles, Mrs. Watkins, Bethany 64424
Cofer, Mrs. Thomas N., 305 Elmdale, Chillicothe 64601
Conrad, Mrs. Joseph, 1202 Jackson, Chillicothe 64601
Cross, Mrs. Albert, 1903 Moberly Rd., Trenton 646B3
Daley, Mrs. Frank, 50B E. Samuel, Hamilton 64644
Dixon, Mrs. John, 1D05 Brookfield, Brookfield 6462B
Dowell, Mrs. Donald, 1B30 Calhoun, Chillicothe 64601
Ellsworth, Mrs. Willard, Trenton 646B3
Fair, Mrs. William, 1705 Calhoun, Chillicothe 64601
Galvez, Mrs. Sisenando P., Santa Fe, Marceline 64658
Gearhart, Mrs. Merriam, 2100 Beekman, 8ethany 64424
Howell, Mrs. Billy, Rt. 1, St. Catherine 64677
Mandler, Mrs. George, 6161 Clay, Chillicothe 64601
Park, Mrs. Young, B05 Fairlane Dr., Chillicothe 64601
Platz, Mrs. John, B04 N. Main, Carrollton 64633
Rose, Mrs. John F., 1024 Grandview, Chillicothe 64601
Trinidad, Mrs. Hermanito, 1324 Dorney Dr., Chillicothe 64601
Yoon, Mrs. Jin S., 1424 Vine, Chillicothe 646D1

## GREENE COUNTY
### (Springfield)

Allen, Mrs. Jerry H., 1324 S. Fairway Terr. 65B04
Alcancia, Mrs. Elpidio, 3046 S. Marlan 65B04
Ancheta, Mrs. Apolinario, 1417 E. Hanover, 65BD4
Anthony, Mrs. Dallas D., 1322 S. Pickwick, 65B04
Ash, Mrs. Charles J., 743 Riverside 65BD7
Ashley, Mrs. Thomas E., 2740 Pythian 65B02
Atkinson, Mrs. Thomas E., Anchor Hill Ranch, Rt. 1, Rogersville 65742
Auner, Mrs. Cecil R., 649 McCann 65B04
Back, Mrs. Donald K., 2B52 S. Glendale 65804
Bailey, Mrs. Alan, 2242 8arataria 65BD4
Baldwin, Mrs. Richard M., 2033 Prairie La. 65BD4

Barnhill, Mrs. Floyd, Rt. 4, Box 5B, Rogersville 65742
Beisner, Mrs. Don, 3505 S. Murphy Rd. 65804
Benson, Mrs. Ronald, 4372 Valley Dr. 65804
Berry, Mrs. Paul T., 2135 Shady Glen 65804
Blades, Mrs. Ross, 230B Barataria 65804
Bonebrake, Mrs. McDonald D., 3B53 E. Catalpa 65804
Boone, Mrs. Martin, Rt. 2, Box 315 65802
Borja, Mrs. E. R., 2912 S. Brentmoor 65804
Brent, Mrs. Lanny, 4430 S. Pratt 65804
Brian, Mrs. Wm., Jr., 225B Barataria 65804
Broaddus, Mrs. Loren, 2409 E. Rosebrier 65804
Brown, Mrs. David, 2727 Melbourne Rd. 65804
Brown, Mrs. Lyman, 1410 N. Rogers 65802
Burkey, Mrs. Jordon W., 2405 Sheridan 65804
Busiek, Mrs. Urban J., 1635 E. Walnut 65802
Callaway, Mrs. Guy, 901 E. Portland 65804
Carr, Mrs. Phillip, 1260 E. Catalpa 65804
Cheek, Mrs. Anne C., 1535 E. Meadowmere 65804
Cheek, Mrs. James W., 2342 Fritts La. 65804
Christensen, Mrs. Harold, 2941 Josselin Pl. 65804
Christy, Mrs. Raymond, Jr., 273B S. Marlan 65804
Ciccone, Mrs. Pasquale, U. S. Medical Center, 65802
Clarke, Mrs. Michael J., Rt. 1, Box 422-A 65803
Clarke, Mrs. Michael S., 1227 S. Delaware 65804
Clary, Mrs. William, 2224 Edgewater 65804
Clayton, Mrs. E. L., 2446 Brentwood Blvd. 65804
Cochran, Mrs. Thomas, 2423 Brentwood Blvd. 65804
Coller, Mrs. Frederick C., 210B E. Cambridge 65804
Cordonnier, Mrs. James K., Rt. 2, Box 272A 65802
Corry, Mrs. Francis, 2B59 Utica 65804
Coulter, Mrs. James W., 2134 Shady Glen 65804
Crawford, Mrs. Oral, Rt. 1, Box 443 65803
Crosthwait, Mrs. Ed L., 2532 S. Luster 65804
Cunningham, Mrs. Dean, 1425 S. Delaware 65804
Dillard, Mrs. Erin M., 2130 S.W. Pleasant Valley Rd. 65804
Domann, Mrs. Darrel, 4305 Ridgeview Rd. 65804
Duncan, Mrs. Robert O., 1234 E. Loren 65804
Elkins, Mrs. Ronald F., 2B30 E. Glenwood Dr. 65804
Ellis, Mrs. Francis J., 2235 E. Glenwood 65804
Ellis, Mrs. Harry L., 2375 E. Rosebrier 65084
Enkvetchakull, Mrs. Boonmee, 3573 Whitehall 65804
Evans, Mrs. E. L., 2457 E. Barataria 65804
Farthing, Mrs. Gene W., 1235 E. Walnut 65802
Farthing, Mrs. Fred, 1234 E. Walnut 65802
Ferguson, Mrs. Lynn, 4111 Ridge Dr. 65804
Fessenden, Mrs. Ersel M., 634 E. Kingsbury 65804
Fitch, Mrs. Max, Rt. 1, Box 285, Brighton 65616
Fogle, Mrs. Phillip, 2140 S. Meadowview 65804
Francis, Mrs. William C., 2B20 E. Glenwood 65804
Freeman, Mrs. S. F., 1339 S. Pickwick 65804
Gaska, Mrs. Walter, 5706 Sherwood 65807
Gentry, Mrs. Michael A., 2151 E. Rosebrier 65804
Gerdes, Mrs. John, 3041 Lamonta 65804
German, Mrs. Walter A., 2971 Southern Hills Blvd. 65804
Giddings, Mrs. Frank C., 1211 S. Pickwick 65804
Giffin, Mrs. James, Rt. 2, Box 91 65802
Gill, Mrs. Paul J., 2712 S. Hillsboro 65804
Glynn, Mrs. Robert, 1101 Benton 65802
Gorelick, Mrs. David F., 1041 Linwood Terr. 65804
Gose, Mrs. Don F., 1339 S. Delaware 65804
Grace, Mrs. Steve, Rt. 2, Box 308 65804
Gwin, Mrs. Edward, 5650 S. Southwood 65804
Hall, Mrs. David, Rt. 2, Rogersville 65742
Hall, Mrs. Durward G., 2442 S. Fremont 65804
Hamburg, Mrs. Fredrick, 1910 Cardinal 65804
Hanan, Mrs. E. B., 724 Kingsbury 65807
Harmon, Mrs. Ben C., Rt. 1, Nixa 65714
Harrison, Mrs. S. W., Rt. 9, Box 122 65804
Harvey, Mrs. Harold O., 2531 Brentwood 65804
H'Doubler, Mrs. Alice, Rt. 7, Box 207 65802
H'Doubler, Mrs. F. T., Jr., 2445 Melbourne Rd. 65804
H'Doubler, Mrs. Peter B., 1137 S. Pickwick 65804
Herfkens, Mrs. Kenneth, 2818 Natural Bridge 65804
Hills, Mrs. Joe E., 2917 Natural Bridge 65804
Hinds, Mrs. Paul A., Rt. 5, Box 532 65803
Holland, Mrs. Robert, 2225 E. Edgewood 65804
Hollis, Mrs. Richard, 2236 S. Inglewood 65804
Holmes, Mrs. Daniel E., Rt. 9, 4318 Sunset 65804
Holmes, Mrs. David R., 2539 Melbourne Rd. 65804
Hrnicek, Mrs. Gary, 5509 E. Bennett 65804
Huewe, Mr. Douglas H., 2204 Claiborne 65804
Hufft, Mrs. Robert E., 2926 S. Versailles 65804
Jameson, Mrs. James, 2412 S. Marlan 65804
Jobe, Mrs. Charles, 2415 E. Edgewood 65804
Johnson, Mrs. Fritz, 3015 White Oak Dr. 65804
Johnson, Mrs. George L., 2855 S. Barnes 65804
Johnson, Mrs. Joe C., 4641 Bittersweet Way 65804
Johnson, Mrs. Warford, 2244 Edgewood 65804
Johnson, Mrs. Warford B., II, 1307 Berkshire 65804
Johnson, Mrs. William F., 973 E. Linwood Dr 65807
Johnston, Mrs. Joseph L., 2855 Southern Hills 65804
Jones, Mrs. Harold L., 3042 Ridge Dr. 65804
Kelly, Mrs. James C., 5709 S. Clay 65807
Key, Mrs. James S., 2278 Inglewood 65804
Khalil, Mrs. Tamer, 2016 S. Pleasant Valley Rd 65804
Kipfer, Mrs. Robert, 4328 S. Pratt 65804
Kissell, Mrs. Richard, 2911 Melbourne Rd. 65804
Klinger, Mrs. George M., Turners 65765
Klingner, Mrs. George M., Jr., Rt. 3, Box 202, Rogersville 65742
Knabb, Mrs. Kenneth E., 1229 E. Catalpa 65804
Krahn, Mrs. Henry, 1415 S. Essex 65804
Langston, Mrs. W. Roland, 1453 S. Fairway 65804
LeFevre, Mrs. Philip, 2121 S. Deer Run La. 65804
Lemmon, Mrs. G. Bruce, 1462 Virginia 65807
Lewis, Mrs. Noel R., Rt. 1, Box 450, Strafford 65757
Lin, Mrs. Chi-Hsi, 2245 Raynell 65804
Litton, Mrs. Lyle, 3044 Shalimar 65804
Lockhart, Mrs. Charles E., 1600 E. Catalpa 65804
Loeb, Mrs. Richard, 4133 E. Ridge Dr. 65804
Lorenc, Mrs. Ernest, 2B19 Canyon Dr. 65804
Lowe, Mrs. Arch, 1700 E. Walnut 65802
Lundman, Mrs. Hugh I., 3740 E. Linwood Dr. 65804
Lurie, Mrs. Harold, 2440 Skyline Dr. 65804
Luzecky, Mrs. Michael H., 1324 Royal Dr. 65804
Lynch, Mrs. Thomas W., Rt. 2, Box 323 65804
Maddux, Mrs. William, 2634 Inglewood Rd. 65804
Maple, Mrs. Francis M., 2115 Edgewood 65804
McAlhany, Mrs. Howard J., 1643 E. Catalpa 65804
McCrea, Mrs. Wm. A., Rt. 1, Box 15A, Republic 65738
McKinsey, Mrs. John, 2802 Natural Bridge 65804
McLaughlin, Mrs. Richard, 2249 Wildwood Circle 65804
Menchetti, Mrs. Don E., 2040 S.W. Pleasant Valley Rd. 65804
Mentgen, Mrs. Carl, 5759 Wildwood Circle-S Dr. 65804
Michael, Mrs. Harvey R., 283B Canyon Dr. 65804
Mihalevich, Mrs. John A., 3643 Sugar Hollow 65804
Miller, Mrs. Arthur, 1549 Holiday 65806
Miller, Mrs. David D., 2241 Cherryvale 65804
Milne, Mrs. Jay, 2947 White Oak Dr. 65804
Moore, Mrs. DeArmand, 2306 S. Meadowview 65804
Moseley, Mrs. F. Thomas, 2B37 Lomita Circle 65804
Neu, Mrs. Leo T., 300B Carlisle Circle 65804
Olson, Mrs. E. Rule, 2645 Wildwood Rd. 65804
Ottensmeyer, Mrs. Charles, 3526 Primrose Ct. 65807
Overend, Mrs. Don, 3020 Ridge Dr. 65804
Palcheff, Mrs. Chris L., Rt. 9, Box 400L 65804
Penninger, Mrs. William H., 2246 Claiborne 65804
Peterson, Mrs. Stanley S., 721 E. Stanford 65807
Pinckley, Mrs. James N., 2949 Natural Bridge 65804
Plumlee, Mrs. W. C., 919 E. Walnut 65806
Podrecca, Mrs. Guido, 2925 Chambery 65804
Powell, Mrs. Edwin, 1226 S. Weller 65804
Prater, Mrs. Bill George, 3000 Carlisle Circle 65804
Pruett, Mrs. Paul L., 2000 S.W. Pleasant Valley Rd. 65804
Quinn, Mrs. Paul, 2B57 Chantilly 65804
Raborar, Mrs. Arteso C., 5650 Woodcliff Dr. 65804
Riesenberg, Mrs. Donald, 1350 E. Delmar 65804
Robinson, Mrs. Gary L., 1301 S. Oak Run 65804
Russell, Mrs. Earl, 1503 S. Glenstone 65804
Salas, Mrs. Rene A., 730 Riverside 65807
Sammon, Mrs. T. James, 1526 S. Devon 65804
Schaeffer, Mrs. Edward, 2356 Wildwood Circle 65804
Schroff, Mrs. Carle H., 244B E. Broadmoor 65804
Schwartz, Mrs. Eugene J., 1315 E. Loren 65804
Schweitzer, Mrs. Fred C., 2550 S. Luster 65804
Shackter, Mrs. Bruce, 1538 Essex 65804
Shane, Mrs. Ramon, 2910 Wildwood Rd. 65804
Shelton, Mrs. R. Wayne, Rt. 2, Box 215A, Willard 65781
Siceluff, Mrs. Joseph G., 609 Cherry 65806
Silsby, Mrs. Don J., 800 E. Brookside 65807
Simpson, Mrs. E. L., 2133 Meadowview 65804
Snead, Mrs. William H., 2532 Sheridan 65804
Sponenberg, Mrs. Don, 2905 Versailles 65804
Stamatis, Mrs. John J., 2B75 S. Rochelle 65804
Stehr, Mrs. Christian, 3124 S. Marlan 65804
Stufflebaum, Mrs. Robert E., 2323 E. Rosebrier
Sturtevant, Mrs. Harwood N., 3935 E. Primrose 65807
Sullivan, Mrs. Dan T., 3801 E. Catalpa 65802
Suva, Mrs. Morfeo M., 1915 E. Swallow 65804
Tarrasch, Mrs. Ernest, 2114 Langston 65804
Terry, Mrs. James F., Jr., Rt. 2, Box 190 65802
Thomasson, Mrs. David D., 2311 E. Glenwood 65804
Tillman, Mrs. Walter, 1220 E. Loren 65804
Tombridge, Mrs. T. L., 2830 S. Marlan 65804
Trotter, Mrs. W. Yates, 1243 E. Catalpa 65804
Tsang, Mrs. John 3514 E. Cherry 65804
Turner, Mrs. Glenn D., 1462 S. Dollison 65804
Upshaw, Mrs. Paul, 211B S. Fairway 65804
Vensel, Mrs. Lee H., Jr., 2255 Meadowview 65804
Wachter, Mrs. Ronald M., 420B Oak Knolls 65804
Waddell, Mrs. Kenneth, RT. 2, Box 144-c, Pleasant Hope, Mo. 65725
Wakeman, Mrs. J. Newton, 1402 Meadowmere 65804
Walker, Mrs. William M., 2845 Southern Hills Blvd. 65804
Wantuck, Mrs. Donald K., 2410 E. Rosebrier 65804
Warren, Mrs. William H., Rt. 1, Ava 65608
Warres, Mrs. Herbert L., 2614 Inglewood Rd. 65804
Webb, Mrs. Richard, 1243 E. Loren 65804
White, Mrs. R. Ned, 3634 Cherry 65804
Whitlock, Mrs. Courtney C., 2238 S. Blackman Rd. 65804
Wilson, Mrs. Roy E., Rt. 1, Box 210-A, Rogersville 65742
Winsky, Mrs. Arlen D., 3031 E. Rocklyn 65804
Wise, Mrs. Gordon F., 2850 Southern Hills 65804
Wittmer, Mrs. Samuel C., 2314 E. Washita 65804
Wolf, Mrs. Marion L., 4303 E. Valley Rd. 65804
Wong, Mrs. George, 2908 Avalon 65804
Wooldridge, Mrs. Wilfred E., 1126 E. Stanford 65807
Wyrsch, Mrs. Leo, 2222 S. Meadowview 65804
Yancey, Mrs. Daniel L., 1133 S. Weller 65804

## JACKSON COUNTY (Kansas City)

Abella, Mrs. Ben Z., 8967 E. 62nd Terr. 64133
Abend, Mrs. Melvin N., 84B W. 52nd Terr. 64112
Abercrombie, Mrs. Keith, 8100 El Monte, Shawnee Mission, KS 66208
Abrams, Mrs. Bernard M., 1021 W. 69th 64113
Adelman, Mrs. Arthur, 6305 Aberdeen, Shawnee Mission, KS 66208
Agee, Mrs. Loren Glenn, Rt. 1, Rantoul, KS 66079
Aks, Mrs. Daniel, 3100 W. 68th, Shawnee Mission, KS 66208
Alderman, Mrs. Donald, 3221 W. 83rd, Leawood, KS 66206
Alderman, Mrs. Thomas F., 309 E. 127th 64145
Allen, Mrs. William B., 12101 E. Barbary Coast Rd., Rt. 2, Tucson, Ariz. 85715
Ammatelli, Mrs. F. J., 1235 W. 57th Terr. 64113
Amoury, Mrs. Raymond A., 2016 W. 81st, Leawood, KS 66206
Andrus, Mrs. Bailey C., 650B Overbrook Rd., Shawnee Mission, KS 66208
Arbab, Mrs. Ali A., 2415 W. 67th, Shawnee Mission, KS 66208
Arms, Mrs. Arnold V., 450 N. Pryor, Lee's Summit 64063
Arms, Mrs. Richard A., 991B High Dr., Leawood, KS 66206
Atcheson, Mrs. Bellfield, 2111 W. 70th Terr., Shawnee Mission, KS 66208
Badeen, Mrs. Louis, 3400 Shady Bend Dr., Independence 64052
Balanoff, Mrs. Arnold Z., 2500 W. 71st, Shawnee Mission, KS 66208
Ballard, Mrs. V. Bryce, 661B Rainbow, Shawnee Mission, KS 66208
Barelli, Mrs. Pat A., 5609 Mission Dr., Shawnee Mission, KS 66208
Barloon, Mrs. James H., 2109 W. 70th, Shawnee Mission, KS 66208
Barnard, Mrs. John L., 825 W. 52nd 64112
Barr, Mrs. Glenn A., 9615 Grandview Rd. 64137
Barry, Mrs. John W., 5510 W. 84th, Shawnee Mission, KS 66207
Barry, Mrs. William B., Sulgrave Apts., 121 W. 48th 64112
Barter, Mrs. Bruce, 8542 Broadmoor, Overland Park, KS 66212
Basantz, Mrs. F. Victor, 2025 W. 91st, Shawnee Mission, KS 66206
Battmer, Mrs. Robert E., 4964 Westwood Terr. 64112
Bauer, Mrs. Lafe W., 4B18 W. 80th, Prairie Village, KS 66208
Beall, Mrs. M. S., 9029 High Dr., Shawnee Mission, KS 66206
Beatty, Mrs. Eugene C., 4923 W. 96th Terr., Shawnee Mission, KS 66207
Becker, Mrs. Rolphe A., 6501 Wenonga, Shawnee Mission, KS 66208
Beeks, Mrs. John W., 10121 Craig, Overland, KS 66212
Beesley, Mrs. Charles V., 741 W. 121st 64145
Behrends, Mrs. Steven H., 10921 E. 71st Terr. 64133
Bell, Mrs. William F., 214 Oxford La., Lee's Summit 64063
Bennett, Mrs. J. D., 4315 W. 111th Terr., Leawood, KS 66211
Benoit, Mrs. Hector W., 2501 W. 64th, Shawnee Mission, KS 66208
Berenson, Mrs. Sheldon E., 832 W. 63rd 64113
Bickley, Mrs. James E., 3004 W. 83rd Terr., Leawood, KS 66206
Biggs, Mrs. Alfred O., Jr., 6551 Wenonga Terr., Shawnee Mission, KS 66208
Bikales, Mrs. Victor W., 5810 High Dr., Shawnee Mission, KS 66208
Bishop, Mrs. Francis, 3208 W. 83rd Terr., Leawood, KS 66206
Black, Mrs. Thomas C., 6411 Belinder Rd., Shawnee Mission, KS 66208
Blim, Mrs. Richard Don, 2209 W. 68th, Shawnee Mission KS 66208
Bohan, Mrs. Peter T., 4545 Wornall Rd. 64111
Bordy, Mrs. Marvin D., 1911 Romany Rd., Shawnee Mission, KS 66208
Borsuk, Mrs. Gregory M., 16525 E. 36th, Independence 64055
Bowser, Mrs. John F., 3701 Madison 64111
Boyd, Mrs. George K., 4810 W. 80th, Shawnee Mission, KS 66208
Braby, Mrs. Howard, 512 Linwood Terr., Independence 64050
Brams, Mrs. Jack B., 5050 Oak St., Apt. 1015 64112
Brand, Mrs. Stanley N., 4303 W. 93rd Terr., Shawnee Mission, KS 66207
Braverman, Mrs. Abe E., 2701 W. 68th, Shawnee Mission KS 66208
Brick, Mrs. Jeffrey, 3012 W. 83rd Terr., Shawnee Mission, KS 66206
Brower, Mrs. Clyde, 118 S. Willis, Independence 64050
Brown, Mrs. Adrian J., 12 E. 63rd 64113
Brown, Mrs. Elwyn S., 200 W. 115th 64114
Brown, Mrs. Menzie H., 9421 Ralston 64138
Brown, Mrs. Robert S., 6635 Belinder, Shawnee Mission, K 66208

8rown, Mrs. William R., 8717 Rosewood Or., Shawnee Mission, KS 66207
8rowne, Mrs. Jon E., 2501 N 69th, Shawnee Mission, KS 66208
8rumm, Mrs. L. W., 7421 Wyoming 64114
8uckner, Mrs. Robert C., 3507 W. 87th, Leawood, KS 66206
8udke, Mrs. Harold A., 1219 W. 66th Terr. 64113
8uie, Mrs. 8ruce R., 4601 E. 110th 64137
Caffrey, Mrs. Raymond J., 1314 W. Red 8ridge Rd. 64114
Campbell, Mrs. John, 6233 Howe Or., Shawnee Mission, KS 66205
Canent, Mrs. Ramon V., Jr., 2009 W. 120th Terr., Shawnee Mission, KS 66209
Capps, Mrs. Eugene C., 7921 El Monte, Shawnee Mission, KS 66208
Carlson, Mrs. Hjalmar E., 2709 W. 66th, Shawnee Mission, KS 66208
Carmichael, Mrs. Francis A., 5841 High Or., Shawnee Mission, KS 66208
Caruso, Mrs. Alfred A., 2018 W. 70th Terr., Shawnee Mission, KS 66208
Case, Mrs. William F., 4913 W. 97th, Shawnee Mission, KS 66207
Casford, Mrs. Ralph, 1236 W. 72nd 64114
Centner, Mrs. Paul J., 4304 W. 66th, Shawnee Mission, KS 66208
Chambers, Mrs. James Q., 5500 8elinder Ave., Shawnee Mission, KS 66205
Chandler, Mrs. Robert A., 4618 Warwick, Apt. 5A 64112
Childs, Mrs. Richard M., 5800 Windsor Or., Shawnee Mission, KS 66205
Chowdhury, Mrs. Oipak, 2728 Seminole Or., Independence 64057
Chung, Mrs. Richard, 4406 North Lake, Lee's Summit 64063
Clark, Mrs. Irving H., 2811 8lue Ridge Ext., Grandview 64030
Clough, Mrs. Charles A., 2400 W. 59th, Shawnee Mission, KS 66208
Cockerell, Mrs. Sanford F., 3051 S. Crysler, Independence 64050
Coffey, Mrs. Ralph R., 5211 Wornall Rd. 64112
Cohen, Mrs. Lawrence S., 6724 Willow La., Mission Hills, KS 66208
Colom, Mrs. George A., 4002 W. 56th, Shawnee Mission, KS 66205
Conn, Mrs. Robert, 3725 W. 64th, Shawnee Mission, KS 66208
Coppinger, Mrs. Thomas A., 8 E. 55th Terr. 64113
Cotton, Mrs. Thomas R., 6908 Valley Rd. 64113
Cowan, Mrs. George, Arapaho TR., Lake Quivira, Kansas City, KS 66106
Crocker, Mrs. Albert, 7512 Crisp 64138
Crouch, Mrs. Thomas T., 6300 Indian Lane, Shawnee Mission, KS 66208
Crow, Mrs. Martin, 3011 W. 84th, Leawood, KS 66206
Curts, Mrs. Calvin J., 5730 Metcalf Ct., Shawnee Mission, KS 66202
Oalton, Mrs. Timothy, 11841 Oak 64114
Oarnell, Mrs. Oale, 8317 Fontana, Prairie Village, KS 66207
Oavidson, Mrs. Kenneth C., 9009 High Or., Shawnee Mission, KS 66206
Oavis, Mrs. Oonald R., 2501 W. 67th, Shawnee Mission, KS 66208
Oavis, Mrs. Jack M., 7110 Harecliff Or. 64133
OeFeo, Mrs. Theodore, 4100 W. 90th Terr., Shawnee Mission, KS 66207
Oemott, Mrs. John O., 4402 Homestead Or., Prairie Village, KS 66208
Dempsey, Mrs. Herbert A., 806 Chestnut, Lee's Summit 64063
Dennie, Mrs. Charles C., 121 W. 48th 64112
Dimond, Mrs. E. Grey, 2501 Holmes 64108
Dlabal, Mrs. L. J., 3729 8lue Ridge 8lvd., Independence 64052
Dlabal, Mrs. Luke J., Jr., 3930 Sequoia, Lee's Summit 64063
Dodge, Mrs. Mark, 7909 8ristal Court, Shawnee Mission KS 66208
Dombeck, Mrs. Stan, 8927 Maple Dr., Shawnee Mission, KS 66207
Downey, Mrs. James W , 6906 W. 52nd Pl., Shawnee Mission, KS 66202
Drake, Mrs. Roy F., 6600 Outlook, Shawnee Mission, KS 66202
Drisko, Mrs. Robert M., 2100 Stratford Rd., Shawnee Mission, KS 66208
Dunleavy, Mrs. James O., 11330 Madison 64114
Durie, Mrs. Robert H., 8446 Juniper La., Shawnee Mission, KS 66207
Durnell, Mrs. Monaford O., 308 Lincolnwood, Lee's Summit 64063
arnest, Mrs. James 8., 1250 W. 59th 64113
agea, Mrs. Fernando M., 9916 Perry Or., Shawnee Mission, KS 66212
isemann, Mrs. Gustave, 6520 Overhill Rd., Shawnee Mission, KS 66208
lias, Mrs. Oavid J., 22 E. Tapawingo, 8lue Springs 64015
llfeldt, Mrs. Howard, 8544 Roe 8lvd., Prairie Village, KS 66207
Elliott, Mrs. R. Glenn, 6136 Reinhardt Or., Shawnee Mission, KS 66205
Englemann, Mrs. Calvin E., 2000 W. 68th, Shawnee Mission, KS 66208
Engleman, Mrs. Reinhold, 11905 Avila Ct. 64114
Ericsson, Mrs. Samuel E., 9065 Rosewood, Shawnee Mission, KS 66207
Etzenhouser, Mrs. Russell F., 1317 W. College, Independence 64052
Eubank, Mrs. Oillard M., 6020 Elm 64133
Eubank, Mrs. Will R., 6113 Lane 64133
Eubank, Mrs. William Y., 1020 W. 60th Terr. 64113
Evans, Mrs. Lawrence L., 1025 W 64th Terr. 64113
Fairchild, Mrs. Robert C., 8425 Reinhardt La., Leawood, KS 66206
Farney, Mrs. Jacob P., 2712 W. 69th, Shawnee Mission, KS 66208
Farnsworth, Mrs. Jesse J., 5608 Fairway, Shawnee Mission, KS 66205
Fayne, Mrs. Fred A., 12505 Monroe 64030
Fee, Mrs. Chester, Rt. 1, Stillwell, KS 66085
Feist, Mrs. William E., 10618 W. 98th Terr., Shawnee Mission, KS 66214
Fischer, Mrs. Jose, 8515 W. 71st, Shawnee Mission, KS 66204
Fitzgerald, Mrs. Robert H., 8505 Cherokee Pl., Shawnee Mission, KS 66206
Flately, Mrs. John A., 827 Huntington Rd. 64113
Flynn, Mrs. James M., 5720 High Or., Shawnee Mission, KS 66208
Folck, Mrs. William P., 5804 N.W. 72nd 64151
Forman, Mrs. Louis H., 2801 W. 67th, Shawnee Mission, KS 66208
Fouts, Mrs. Oallas, Sr., 8ox 124, Rt. 1, Lee's Summit 64063
Fowler, Mrs. Fred O., 1247 W. 67th Terr. 64113
Fredeen, Mrs. Robert C., 5437 Canterbury Rd., Shawnee Mission, KS 66205
Freiden, Mrs. Floyd J., 9001 Maple, Shawnee Mission, KS 66207
Frick, Mrs. J. Paul, 4740 Roanoke Pkwy., Apt. 905 64112
Fritzlen, Mrs. Thomas J., 825 W. 63rd 64113
Ganley, Mrs. William Coyle, 9927 Walnut Or., Apt. 103 64114
Garner, Mrs. James H., 10201 Howe Or., Shawnee Mission, KS 66206
Garrison, Mrs. Roy F., 404 W. 67th Terr. 64113
Gauthier, Mrs. Charles P., 11319 Summit 64114
Geha, Mrs. 8raham J., 4 Wycklow, Shawnee Mission, KS 66207
Geiger, Mrs. W. A., Jr., 3506 W 92nd Terr., Leawood, KS 66206
Gibbons, Mrs. Robert T., Jr., 8422 Reinhardt La., Shawnee Mission, KS 66206
Gilgore, Mrs. Alfred, 8903 Cedar Lane, Shawnee Mission, KS 66207
Ginsberg, Mrs. Norman A., 1220 W 67th 64113
Gist, Mrs. W. W., 1230 W. 66th 64113
Givler, Mrs. Robert L., 408 Hargis La., 8elton 64012
Glasscock, Mrs. Ernest L., 6214 High Or., Shawnee Mission, KS 66208
Glatter, Mrs. Thomas R., 12616 Cherokee La., Leawood, KS 66209
Goldman, Mrs. Stanley, 5734 Windsor Or., Shawnee Mission, KS 66205
Goldsich, Mrs. Edward, 5115 W 81st, Shawnee Mission, KS 66208
Goldstein, Mrs. Marvin F., 901 W. 113th Terr. 64114
Goodson, Mrs. W. H., 815 W. 59th 64113
Gordon, Mrs. Morris P., 10527 Walnut Or. 64114
Gottsch, Mrs. Joseph C., 7904 Granada, Prairie Village, KS 66208
Green, Mrs. John R., Jr., 3143 Santa Fee Terr., Independence 64055
Guastello, Mrs. Joseph R., 5625 W. 81st Terr., Shawnee Mission, KS 66208
Gustafson, Mrs. Jon E., 4510 N. Lake Dr., Lee's Summit 64063
Gutek, Mrs. E. Philip, 6508 State Line Rd, Shawnee Mission, KS 66208
Haas, Mrs. Henry D., 5330 W. 100th, Shawnee Mission, KS 66207
Habib, Mrs. Henry N., 440 E 74th Terr. 64131
Hahn, Mrs. Fred, 12001 E. 48th Terr. 64133
Haight, Mrs. J. Max, 5609 8lue Ridge 8lvd. 64133
Hall, Mrs. John C., 7336 Ash, Shawnee Mission, KS 66208
Hall, Mrs. Ralph R., 3900 W. 57th, Fairway, KS 66205
Halperin, Mrs. Phillip H., 8348 Summersit Dr., Prairie Village, KS 66207
Hamill, Mrs. Robert W , 8122 Monrovi, Shawnee Mission, KS 66204
Hamlin, Mrs. Howard, 4017 W. 100th Pl., Shawnee Mission, KS 66207
Hanson, Mrs. E. Jerome, Jr., 3801 W 63rd, Shawnee Mission, KS 66204
Hartwig, Mrs. Fred H., 5204 Pawnee Dr., Shawnee Mission, KS 66205
Hartwig, Mrs. Raymond W , 6546 Wenonga Rd., Shawnee Mission, KS 66208
Hausheer, Mrs. Herman, 12900 E. 36th Terr., Independence 64050
Haynes, Mrs. Solon, 121 W. 73rd 64114
Hays, Mrs. Larry V , 3822 W 58th, Shawnee Mission, KS 66205
Hazuka, Mrs. Oavid F., 8904 Mohawk La., Leawood, KS 66206
Hellman, Mrs. Richard, 4817 W 81st, Shawnee Mission, KS 66208
Helman, Mrs. Richard G., 6540 Wenonga Rd., Shawnee Mission, KS 66208
Herdoiza, Mrs. Alfonso W., 5300 W 98th Terr , Overland Park, KS 66207
Hervey, Mrs. William H , II, 6601 Overhill Rd., Shawnee Mission, KS 66208
Hibbard, Mrs. 8laine Z., 2900 W 53rd, Shawnee Mission, KS 66205
Hickerson, Mrs. William H., 4207 S Crysler, Independence 64050
Hill, Mrs. J. H., 8115 Meadow La., Leawood, KS 66206
Hoadley, Mrs. William O., 2608 W 70th, Shawnee Mission, KS 66208
Hodgson, Mrs. Frank H., 1049 W 55th 64113
Hoeper, Mrs. Samuel O., 13009 12th 64030
Hoeper, Mrs. Sam O., Jr., 12516 Grandview Rd., Grandview 64040
Hoffman, Mrs. Alan L., 11330 Jefferson 64114
Hollinger, Mrs. Lloyd A., 4403 W. 93rd Terr., Shawnee Mission, KS 66207
Holman, Mrs. Joseph, 5208 8ekkeview 64112
Hollweg, Mrs. Kenneth C., 808 W. Meyer 8lvd. 64113
Holton, Mrs. Edward 8., 2817 Westport Rd., Independence 64052
Hughes, Mrs. Michael, 4930 W. 97th, Shawnee Mission, KS 66207
Hunkeler, Mrs. John O., 5326 Mission Woods Rd., Shawnee Mission, KS 66205
Hunt, Mrs. Thomas R., 6336 Ensley La., Shawnee Mission, KS 66208
Hunzicker, Mrs. Warren, 1248 Stratford Rd. 64113
Hyde, Mrs. Lawrence L., 5020 W. 67th, Shawnee Mission, KS 66208
Ingham, Mrs. Walton C., 9723 Overbrook Rd., Shawnee Mission, KS 66206
Irvine, Mrs. John, 2500 Red 8ridge Terr. 64131
Jacob, Mrs. Wlater P., 5301 W. 83rd Terr., Shawnee Mission, KS 66207
Jacobs, Mrs. Morton, 6416 Verona Rd., Shawnee Mission, KS 66208
Jacobs, Mrs. Walter H., 6656 Milhaven Or., Shawnee Mission, KS 66202
Janes, Mrs. Oonald R., 14831 W. 90th, Lenexa, KS 66215
Johnson, Mrs. C. Laurence, 729 S. 53rd, Kansas City, KS 66106
Johnson, Mrs. Oallas A., 5321 96th Terr., Shawnee Mission, KS 66207
Jonas, Mrs. Harry S., 207 Spruce, Lee's Summit 64063
Jones, Mrs. Gale O., 6208 Reinhardt Or., Shawnee Mission, KS 66205
Jones, Mrs. Samuel T., 9915 Cherokee La., Shawnee Mission, KS 66206
Jones, Mrs. T. Reid, 6341 Roe, Shawnee Mission, KS 66208
Jouvenat, Mrs. Neil, 1016 W. 58th 64113
Justus, Mrs. John 8., 5221 Howe Or., Shawnee Mission, KS 66205
Kanarek, Mrs. Joseph, 6112 W. 87th Terr., Shawnee Mission, KS 66207
Kandt, Mrs. Ray E., Jr., 8900 Maple Or., Shawnee Mission, KS 66207
Kantor, Mrs. Julius M., 6708 High Or., Shawnee Mission, KS 66208
Kantor, Mrs. Samuel, 3604 W. 87th, Leawood, KS 66206
Kayanan, Mrs. Jose, 200 W. 100th Terr. 64114
Keeler, Mrs. James E., 425 E. Meyer 8lvd. 64131
Keeling, Mrs. Oouglas, 11021 W. 96th Terr., Shawnee Mission, KS 66214
Keltner, Mrs. Raymond O., 8900 Pawnee La., Leawood, KS 66206
Kendall, Mrs. Charles A., 604 Red Rd., Independence 64055
Kendall, Mrs. Gene, 10109 Howe Dr., Shawnee Mission, KS 66206
Kennard, Mrs. G. Keith, 3658 Madison 64111
Kennedy, Mrs. Fred R., 8022 El Monte, Prairie Village, KS 66208
Kent, Mrs. 8ela, 5839 Cherokee, Shawnee Mission, KS 66205
Kettner, Mrs. Edward G., 6510 Milhaven Or., Shawnee Mission, KS 66202
Kiene, Mrs. Richard H., 6429 Overbrook Rd., Shawnee Mission, KS 66208
Killen, Mrs. Ouncan A., 1909 W. 70th, Shawnee Mission, KS 66208
Kindred, Mrs. Lynn H., 4606 W. 82nd Terr., Prairie Village, KS 66208
Kitchen, Mrs. W. M., 2700 W. 68th, Shawnee Mission, KS 66208
Knoch, Mrs. H. Kermit, 6606 Willow La., Shawnee Mission, KS 66208
Koppers, Mrs. Lawrence E., 9304 Lee Ct., Leawood, KS 66206

Kurtz, Mrs. Karl J., 10012 Wedd Dr., Shawnee Mission, KS 66212
Kyger, Mrs. John E 3612-8lue Ridge Independence 64052
Lamar, Mrs. Robert F., 800 W 53rd Terr. 64112
Lambie, Mrs. Rodger W., 10317 Grant La Shawnee Mission, KS 66212
Landis, Mrs. George K., 9826 Shepherd's Cir. 64131
Larsen, Mrs. William E 10311 8elinder Rd., Leawood, KS 66206
Latham, Mrs. Raymond W., 3008 W 67th, Shawnee Mission, KS 66208
Lauer, Mrs. Daniel J 8718 Cherokee La., Leawood, KS 66206
Layle, Mrs. John K 5800 High Dr., Shawnee Mission, KS 66208
Layton, Mrs. Ira, 6511 W 67th, Shawnee Mission, KS 66202
Lee, Mrs. Gerald 8., 13412 E 51st 64133
Lee, Mrs. Henry A., 9821 Sagamore Rd., Leawood, KS 66206
Lee, Mrs. King Y 5825 Pembroke Ct., Shawnee Mission, KS 66208
Lentz, Mrs. Calvin, 55th Terr & Noland Rd. 64133
Lentz, Mrs. Clark H., 2600 W. 69th, Shawnee Mission, KS 66208
Leo, Mrs. William A., 4505 W 66th, Prairie Village, KS 66208
Lie, Mrs. Huie, 8110 Rosewood, Shawnee Mission, KS 66215
Lindgren Mrs. Carleton J., 12805 E. 38th, Independence 64055
Link, Mrs. Vance E., 1201 W 36th, Independence 64050
Liston, Mrs. Stephen, 9824 Overbrook Rd., Leawood, KS 66206
Lockwood, Mrs. Gary F., 7835 Walker 66112
Long, Mrs. R. Stacy, Lot Z-56, Lake Latawana 64063
Lotito, Mrs. Carlos, 2603 W. 70th Terr., Shawnee Mission, KS 66208
Loutzenhiser, Mrs. James K., 11405 Jefferson 64114
Luetje, Mrs. Charles M., 9519 Connell Dr., Overland Park, KS 66212
Lulo, Mrs. Antonio, 8726 Cherokee La., Leawood, KS 66206
Lyddon, Mrs. H R Jr 1221 W. 67th 64113
Lytton, Mrs. George J., P O. Box 579, Hastings, NE 68901
MacNaughton, Mrs. Ralph E., 17 Wycklow, Overland Park, KS 66207
Mallouck, Mrs. Alexander G., 6508 W. 102nd, Shawnee Mission, KS 66212
Mangels, Mrs. Kenneth A., Jr., 1103 W. 36th Terr., Independence 64055
Mangum, Mrs. William 8. 5780 Bower Ave. 64133
Mantz, Mrs. Herbert L., 1209 Romany Rd 64113
Martin, Mrs. Clyde V., 5531 E Mission Dr., Shawnee Mission, KS 66208
Masucci, Mrs. Joseph M., 11800 Washington 64114
Mayer, Mrs. John H., Jr., 5739 Windsor Dr., Shawnee Mission, KS 66205
McAnelly Mrs. George, 511 Park 64127
McCallister, Mrs. Ben D., 6431 Norwood, Shawnee Mission, KS 66212
McCanse, Mrs. Andrew, 1232 W. 60th Terr. 64113
McCanse, Mrs. Lynn, 621 Westover Rd 64113
McClanahan Mrs. Robert C., 310 W 49th, Apt. 502 64112
McConahay, Mrs. David R., 6225 Indian La., Shawnee Mission, KS 66208
McCoy, Mrs. Frederick J. 5814 Mission Dr., Shawnee Mission, KS 66208
McDonald, Mrs. Herbert L., 11830 Central 64114
McDonnell, Mrs. John F., 5411 Central 64112
McFarland, Mrs. Harry R., 1005 W. 69th Terr 64113
McGannon, Mrs. Paul, 2201 Arno Rd., Shawnee Mission, KS 66208
McIntosh, Mrs. Donald E., 12709 Oakmont Dr 64145
McKee, Mrs Wallace P 2335 Guilford La., Shawnee Mission, KS 66208
McMillan, Mrs. Thomas E., 8201 Dearborn, Shawnee Mission, KS 66208
McNabney, Mrs. W Kendall, 5319 Oak 64112
Medlicott, Mrs William, 426 N Winnebago, Greenwood 64034
Meegan, Mrs. Robert J., 401 W. 119th Terr. 64145
Mehta, Mrs. Satish K. 2307 E. 109th 64131
Melgaard, Mrs. S. Ross, 1012 W 61st Terr. 64113
Meyer, Mrs. Paul W 5160 Sunset Dr 64112
Meyers, Mrs. Harold L., 3001 W 71st Shawnee Mission, KS 66208
Miles, Mrs. George O., 9020 Mission Rd., Shawnee Mission, KS 66206
Miller, Mrs. Gerald L., 836 W 51st 64112
Miller, Mrs. Gerald L. Jr. 2500 W 69th, Shawnee Mission, KS 66208
Miller, Mrs. Max I. 5620 High Dr. 66208
Miller, Mrs. Wilson H., 6400 Verona Rd., Shawnee Mission, KS 66208
Mitchell, Mrs. Andrew D., 4013 W 73rd Terr. Shawnee Mission, KS 66208
Mitchell, Mrs. John D., 6104 Lockton La., Shawnee Mission, KS 66205
Mitra, Mrs. Nirmal, 2007 W 81st Terr., Shawnee Mission, KS 66206
Mixson, Mrs. William C., 6501 Sagamore Rd., Shawnee Mission, KS 66208
Montello, Mrs. Samuel A., 4109 Delmar Dr., Prairie Village, KS 66208
Mooney, Mrs. Marcel L., 2902 W. 67th Terr., Shawnee Mission, KS 66208
Moore, Mrs. Jack D., 2002 W 67th Terr., Shawnee Mission, KS 66208
Moore, Mrs. Robert A., 10818 W. 102nd, Shawnee Mission, KS 66214
Moreano, Mrs. Aramando H., 8417 Nall, Prairie Village, KS 66207
Morgan, Mrs. David 8., 6513 Jefferson 64113
Morris, Mrs. Joseph H., 5017 George 64133
Mosbacher, Mrs. Hugh E., 919 Court Lake Dr., Independence 64055
Mueller, Mrs. M. J. 11723 Central 64114
Mullen, Mrs. Leo M., 1900 W 68th, Shawnee Mission, KS 66208
Murphy, Mrs. Robert J., 6428 High Dr., Shawnee Mission, KS 66208
Myers, Mrs. George H., 12712 High Dr., Leawood, KS 66209
Naime, Mrs. Mansour J., 9625 Linden Dr., Shawnee Mission, KS 66207
Nesselrode, Mrs. John H., 12000 Marbec Trail, Independence 64052
Neumann, Mrs. James, 5850 Pembroke Ct., Shawnee Mission, KS 66208
Nickson, Mrs. Charles E., Jr., 4425 Larson 64133
Noback, Mrs. R. K., 628 W. 67th 64113
Noltensmeyer, Mrs. Milton, 3305 W. 50th Terr., Shawnee Mission, KS 66205
O'Farrell, Mrs. Thomas, 2000 Stratford Rd., Shawnee Mission, KS 66208
Overesch, Mrs. Harry B., 10804 Grandview Rd. 64137
Owens, Mrs. James, 1258 Huntington Rd. 64113
Ozar Mrs. Milton B., 1206 W. 62nd 64113
Padfield, Mrs. Earl G., 310 W. 49th 64112
Padula, Mrs. Richard, 2001 W 68th, Shawnee Mission, KS 66208
Parker, Mrs. Hubert M. 1200 W. Red Bridge Rd. 64114
Payne, Mrs. J. Ralph, 4460 Rockhill Rd. 64110
Penner, Mrs. Stanley, 4302 W 93rd Terr., Shawnee Mission, KS 66207
Perll, Mrs. Maurice F., 830 W. 61st Terr. 64113
Perry, Mrs. Ralph, 7140 Sni-A-Bar Rd. 64129
Peterson, Mrs. Eugene G., 108 Hackberry, Lee's Summit 64063
Peterson, Mrs. George, 4806 W. 68th, Shawnee Mission, KS 66208
Peterson, Mrs. Jay T., 4312 W 74th, Prairie Village, KS 66208
Piebenga, Mrs. Larry W., 4010 W. 57th, Fairway, KS 66205
Piepergerdes, Mrs. Larry G., 288 Winnebago Dr., Lake Winnebago 64034
Pinkerton, Mrs. Joseph A. Jr., 6215 Ensley La., Shawnee Mission, KS 66208
Piper, Mrs. Donald K., 9929 High Dr., Shawnee Mission, KS 66206
Porter, Mrs. Louis, 6017 McGee 64113
Porter, Mrs. Michael, 6925 Belinder, Shawnee Mission, KS 66208
Pugh, Mrs. Richard G., 102 Golfview Dr., Blue Springs 64015
Quer, Mrs. Erich A., 1901 Stratford Rd., Shawnee Mission, KS 66208
Raich, Mrs. Robert A. 828 Greenway Terr. 64113
Rector, Mrs. Joe Lee, Jr., 3915 W. 53rd, Shawnee Mission, KS 66205
Reed, Mrs. William A., 5931 High Dr., Shawnee Mission, KS 66208
Reinhardt, Mrs. G. Robert, 1201 Romany Rd. 64113
Reynolds, Mrs. James, 4948 Somerset, Shawnee Mission, KS 66207
Rice, Mrs. Gerard F., 8431 Juniper La., Shawnee Mission, KS 66207
Richards, Mrs. Jose T. 6564 W. 49th, Shawnee Mission, KS 66202
Riller, Mrs. L. E., 1267 W 61st 64113
Roberts, Mrs. Fred, 9221 Pawnee La., Shawnee Mission, KS 66206
Robinson, Mrs. Arthur W., 6600 Wenonga Rd., Shawnee Mission, KS 66208
Robinson, Mrs. James Travis, Jr 4203 W. 92nd Terr., Shawnee Mission, KS 66207
Robinson, Mrs. William J., 9931 Lee Circle, Shawnee Mission, KS 66206
Rodgers, Mrs. George H., 10041 El Monte La., Shawnee Mission, KS 66207
Rofail, Mrs. Amin, 9206 England, Shawnee Mission, KS 66212
Romito, Mrs. Anthony J. 9015 Lamar, Shawnee Mission, KS 66207
Roth, Mrs. Alfred D., 6644 Outlook, Mission, 66202
Rozen, Mrs. Jay D., 2408 Arno Rd., Shawnee Mission, KS 66208
Rubin, Mrs. Harvey P., 4606 W. 87th Terr., Shawnee Mission, KS 66207
Rubin, Mrs. Sidney, 1287 W 72nd 64114
Rutherford, Mrs. Barry, 5001 W. 66th Terr., Shawnee Mission, KS 66208
Sabates, Mrs. Felix, 2503 W 70th Terr., Shawnee Mission, KS 66208
Sanders, Mrs. Donald, 200 Avila Circle 64114
Sanders, Mrs. William F., 1004 W 66th Terr. 64113
Sauer, Mrs. Gordon C., 830 W. 58th Terr. 64113
Schiffmacher, Mrs. Jack E., 4517 W. 65th, Prairie Village, KS 66208
Schillie, Mrs. Gene A., 7010 Overhill Rd., Shawnee Mission, KS 66212
Schlozman, Mrs. Daniel L., 6600 Overhill Rd., Shawnee Mission, KS 66208
Schoolman, Mrs. Arnold, 8705 Catalina Dr., Shawnee Mission, KS 66207
Schottman, Mrs. Gerhard W., Jr., 5110 W 96th Terr., Shawnee Mission, KS 66207
Seeley, Mrs. Clark W., 3000 W 68th, Shawnee Mission, KS 66208
Seiden, Mrs. Gerald D., 2509 W. 71st, Prairie Village, KS 66208
Sells, Mrs. Kenneth J., 5930 Mission Dr., Shawnee Mission KS 66208
Shalley, Mrs. Jack E., 14401 E. 44th, Independence 64055
Sheahon, Mrs. John, 7037 Lakeshore Dr., Raytown 64133
Sheldon, Mrs. Russell D., 816 W 58th Terr. 64113
Shifrin, Mrs. Alexander, 1027 W. 69th Terr. 64113
Shuey, Mrs. Herbert H., 5339 W. 96th, Shawnee Mission, KS 66207
Simon, Mrs. Sanford, 5820 Mission Dr., Shawnee Mission, KS 66208
Sinclair, Mrs. Richard H., 3908 W. 91st, Shawnee Mission, KS 66207
Singleton, Mrs. Charles M., II, 4101 W. 57th, Shawnee Mission, KS 66205
Singleton, Mrs. John M., III, 9030 High Dr., Shawnee Mission, KS 66206
Skillman, Mrs. Robert K., 10335 High Dr., Shawnee Mission KS 66206
Skinner, Mrs. John T., 824 Westover Rd. 64113
Slentz, Mrs. Edwin L., 4812 W 66 Terr., Shawnee Mission, KS 66208
Slentz, Mrs. William A., 9835 Pembroke La., Shawnee Mission, KS 66206
Slickman, Mrs. Robert A., 4937 Wyoming 64112
Smith, Mrs. Arthur B., 8409 Wenonga Rd., Shawnee Mission, KS 66206
Smith, Mrs. E. E., Jr., 9009 Mission Rd., Leawood, KS 66206
Smith, Mrs. Othello D., 5400 W. 83rd, Prairie Village, KS 66206
Smith, Mrs. Thomas, 8921 Maple, Shawnee Mission, KS 66207
Sneid, Mrs. Philip, 4201 W. 90th Terr., Shawnee Mission KS 66207
Snider, Mrs. Wilbur Ray, 7201 Mastin, Shawnee Mission, KS 66204
Spafford, Mrs. Allen L., 5552 Belinder Ave., Shawnee Mission, KS 66205
Spalding, Mrs. Wilbur 8., Jr., 5400 Ward Pkwy. 64112
Spurny, Mrs. Otto M., 6400 Cherry 64131
Staab, Mrs. Gerald E., 3515 W. 64th, Shawnee Mission, KS 66206
Stacey, Mr. Wallace R., 3407 Shady Bend Dr., Independence 64052
Staggs, Mrs. William A., 641 E. 45th 64110
Staley, Mrs. Harry R., 4740 Roanoke Pkwy. 64112
Statland, Mrs. Harry, 1016 W. 69th Terr. 64113
Statland, Mrs. Morris, 2911 W. 66th Terr., Shawnee Mission KS 66208
Steel, Mrs. Maxwell W., Jr., 12600 Ensley La., Shawnee Mission, KS 66209
Steffen, Mrs. L. F., 9606 Neiman Pl., Overland Park, KS 66214
Stelmach, Mrs. W Jack, 5252 Sunset Dr 64112
Stern, Mrs. Thomas L., 1235 W. 62nd 64113
Stribling, Mrs. Thomas L., 3808 S. Union, Independence 64055
Stuber, Mrs. Jack L., 5617 Pembroke La., Shawnee Mission KS 66208
Szabados, Mrs. Ernest D., 1901 S. Leslie, Independence 64050
Thalblum, Mrs. Harvey, 8405 Ensley La., Shawnee Mission KS 66206
Thomas, Mrs. Christopher Y., Jr., 5830 Mission Dr., Shawne Mission, KS 66208
Thompson, Mrs. C. Leslie, 801 W 53rd Terr. 64112
Throne, Mrs. Benjamin, 7919 Sagamore Rd., Shawnee Mission, KS 66208
Throne, Mrs. Elias M., 10621 W. 102nd, Overland Park, K 66214
Tice, Mrs. Wayne K., 3504 S. Delaware, Independence 64050
Tillema, Mrs. David A., 8015 El Monte, Shawnee Mission, K 66208
Titterington, Mrs. Frank W., 616 W. 58th Terr. 64113
Toubes, Mrs. Daniel, 9718 Menonga, Leawood, KS 6620
Troeh, Mrs. Richard, 13000 Delaware Dr., Independence 64055
Trowbridge, Mrs. E. H., 101st Drive, Sun City, Ariz. 8537

Tuohy, Mrs. Gerald, 209 W. 125th Terr. 64145
Turano, Mrs. William, 7000 Lake Shore Dr., Raytown 64133
Tutera, Mrs. O. F., 1260 W 63rd Terr. 64113
Twin, Mrs. Edward, 8208 Tomahawk, Shawnee Mission, KS 66208
Underwood, Mrs. Dick H., 9828 Belinder, Shawnee Mission, KS 66206
Van Biber, Mrs. James T., 3705 Northern Blvd., Independence 64052
Venegoni, Mrs. Robert L., 8701 Birch La., Prairie Village, KS 66207
Vera, Mrs. Enrique, 9218 W. 82nd Terr., Shawnee Mission, KS 66204
Vergara, Mrs. Gerardo G., 5200 W 84th Terr., Prairie Village, KS 66204
Victor, Mrs. Frank, 9639 Chadwick, Shawnee Mission, KS 66206
Vidals, Mrs. V. G., 9509 W. 104th Terr., Overland Park, KS 66212
Vilmer, Mrs. Charles E., 6209 W. 65th, Shawnee Mission, KS 66202
Virden, Mrs. Herbert H., 6533 High Dr., Shawnee Mission, KS 66208
Vogel, Mrs. Arthur P., 2215 Drury La., Shawnee Mission, KS 66208
Volk, Mrs. George E., 109 W. 115th 64114
Voth, Mrs. Harold W., 5413 Neosho, Shawnee Mission, KS 66205
Wade, Mrs. Frederick E., 1215 W. 68th Terr. 64113
Wagner, Mrs. Paul J., Greenwillow Farm, Rt. 1, Greenwood 64034
Walker, Mrs. Orville C., Jr., 604 Partridge, Independence 64050
Wall, Mrs. Leonard A., 5011 Neosho Ave., Shawnee Mission, KS 66205
Waxman, Mrs. Herbert, 2012 W. 81st, Shawnee Mission, KS 66206
Weir, Mrs. Robert K., 10015 E. 36th, Independence 64052
Wells, Mrs. Donald E., I-18 Lake Lotowana, Rt. 4, Lee's Summit 64063
Wells, Mrs. Stanley D., 328 Wabasa Cir., Olathe, KS 66061
Wheeler, Mrs. Charles B., 830 W 53rd 64112
Wheeler, Mrs. John H., 5650 Mission Dr., Shawnee Mission, KS 66208
Whitaker, Mrs. James, 6450 Sagamore Rd., Shawnee Mission, KS 66208
White, Mrs. Charles H., 6518 Overhill Rd., Prairie Village, KS 66208
White, Mrs. Stroughton F., 6815 Cherokee La., Shawnee Mission, KS 66208
Whitman, Mrs. Doyle C., 6836 Cherokee La., Shawnee Mission, KS 66208
Whitmore, Mrs. J. Stewart, 5728 Windsor Dr., Shawnee Mission, KS 66205
Wicks, Mrs. Edwin D., 506 N.W. 43rd Terr. 64116
Wilber, Mrs. Robert D., 6056 Mission Dr., Shawnee Mission, KS 66208
Wilhelm, Mrs. Warren F., 3100 W. 67th, Shawnee Mission, KS 66208
Williams, Mrs. Frank, 5921 Ward Parkway 64113
Williams, Mrs. George P., 9413 Ralston 64138
Williams, Mrs. Joseph C., Jr., 2209 Arno Rd., Shawnee Mission, KS 66208
Willoughby, Mrs. James W., 420 N Ridge, Liberty 64068
Willoughby, Mrs. Jean B., 1019 W. 69th Terr. 64113
Winer, Mrs. Herbert J., 2103 W. 69th Terr., Shawnee Mission, KS 66208
Winston, Mrs. Bernard H., 1006 W. 67th 64113
Wise, Mrs. Morris F., 2610 W. 105th, Leawood, KS 66206
Wolf, Mrs. Jack, 6125 Morningside Dr. 64113
Woods, Mrs. S. Dwight, 3825 W. 57th Terr., Shawnee Mission, KS 66205
Woods, Mrs. Walton C., 9004 E. 73rd 64133
Woodward, Mrs. William, 3610 S. Delaware, Independence 64055
Wortmann, Mrs. Robert F., 2819 W. 66th Terr., Shawnee Mission, KS 66208
Wright, Mrs. R. Paul, 9119 Riggs La., Shawnee Mission, KS 66212
Wu, Mrs. Shuh-Min, 4506 W. 93rd Terr., Shawnee Mission, KS 66207
Wu, Mrs. William, 6700 Troost 64131
Wurster, Mrs. Jerry B., 5218 W. 98th Terr., Shawnee Mission, KS 66207
Youll, Mrs. Donald V., 8711 Ensley La., Shawnee Mission, KS 66206
Youmans, Mrs. Ronald, 3901 W. 73rd, Shawnee Mission, KS 66208
Young, Mrs. James E., 9700 Overbrook Rd., Leawood, KS 66206
Young, Mrs. J. W., 5443 Mohawk, Shawnee Mission, KS 66205
ahony, Mrs. Ivan, 4404 W 11th Terr., Shawnee Mission, KS 66211
eller, Mrs. Darrell, 4836 W 76th, Shawnee Mission, KS 66208
iemianski, Mrs. Matthew C., 10823 W. 100th Pl., Shawnee Mission, KS 66214
oglin, Mrs. Nathan, 333 W. Meyer Blvd. 64113
Zoller, Mrs. David O., 74 Lake Shore Dr., Lake Quivera, KS 66106
Zwerenz, Mrs. Bruno, Rt. 2, Box 158, 15 A Lake Tapawingo, Blue Springs 64015

### JASPER COUNTY
### (Joplin 64801)

Adams, Mrs. Robert, 1302 Mississippi
Allen, Mrs. David O., Rt. 4, Box 85
Al-Shathir, Mrs. Saad, 66 Briarwood Dr.
Bentlage, Mrs. Charles, 2727 Connor
Barnett, Mrs. Norman, Box 271, Rt. 3
Bhend, Mrs. David, 1212 Sheridan Dr.
Bird, Mrs. William F., Rt. 2, Box 144, Lot 17
Bladow, Mrs. Terrence, Rt. 5, Box 140-A
Bopp, Mrs. Ronald, 505 Glenview
Brandon, Mrs. Frederick, 2609 E. 12th
Burch, Mrs. John E., 200 Medical Arts Bldg.
Burleigh, Mrs. Bruce, 601 Jaccard Pl.
Butler, Mrs. Patrick, 1330 Crest Dr
Carnes, Mrs. Victor, 1418 Crestwood Dr.
Chase, Mrs. Ned, 2931 Indiana
Chesney, Mrs. George W., Jr., 2416 E. 12th 64801
Clark, Mrs. Frank, 4611 Seagraves Dr. 64801
Cohle, Mrs. Richard, 1609 Lilac La., Carthage 64836
Crawford, Mrs. Archie L., 2931 Pearl Ave.
Crispell, Mrs. Lawrence, 911 Kensington Rd.
Curl, Mrs. Howard, 2031½ Pearl
Dandridge, Mrs. Kirk, 421 Sergeant
Dixon, Mrs. Herbert, Rt. 2, Box 221
Esther, Mrs. John, 612 Glenview
Ferguson, Mrs. Ralph, 420 E. 33rd
Ferguson, Mrs. Robert M., 2319 E. 10th
Fritsch, Mrs. Andrew, 2920 Pearl
Frogge, Mrs. James O., 2005 Laurel La.
Gardner, Mrs. Joe, 1002 N. Moffet
Gaston, Mrs. Samuel, 2720 Ohio
Grebe, Mrs. Keith, 2736 E. 15th
Grim, Mrs. Edward, 1402 Mississippi
Habermann, Mrs. James, 1324 Fairmont
Hallaba, Mrs. Moheb, Rt 2, Box 197C
Hilton, Mrs. Paul, 1612 Murphy Blvd.
Isbell, Mrs. C. H., 1046 S. Garrison, Carthage 64836
Kelly, Mrs. John, 2311 E. 10th
Koehler, Mrs. John W., 1001 Manitou
MacLaughlin, Mrs. James, 728 N. Pearl
Maddox, Mrs. John, 1732 St. Louis
Majzoub, Mrs. Hish, 2802 Illinois
Manalo, Mrs. Gil B., 1607 S. Main, Carthage 64836
Martin, Mrs. Clarence, 2419 E. 10th
McGonigle, Mrs. James, 1037 Campbell Pkwy.
McGonigle, Mrs. Michael, 4624 Hickory La.
McPike, Mrs. Lloyd H., 2217 Brownell
Mueller, Mrs. Adolph, 615 Hampton Pl.
Patterson, Mrs. Donald R., 210 Duquesne
Patterson, Mrs. Grover, 1727 River, Carthage 64836
Pottenger, Mrs. L. Ken, Rt. 2, Box 144, #28
Powell, Mrs. Robert, 1818 Galena, Galena, KS 66739
Pryor, Mrs. I. Joe, 2625 Wisconsin
Ray, Mrs. David J., Rt. 2, Box 144-32
Roberts, Mrs. Howard, Rt. 4, Box 63-J
Schoeberl, Mrs. C. B., 3111 E. 4th
Schulte, Mrs. Gregory A., 2515 E. 12th
Simons, Mrs. Jess, 2700 McClelland Blvd.
Smith, Mrs. Roland T., 1444 Crestwood
Smith, Mrs. Russell W., 315 Euclid, Carthage 64836
Stidman, Mrs. Fred, 4619 Wall
Turfboer, Mrs. Robert, 2701 W. 32nd
Wieman, Mrs. Harry K., 536 N. Wall
Wilcoxson, Mrs. Robert, 1330 Valle Dr.
Wood, Mrs. George H., 530 E. Highland, Carthage 64836
Wooldridge, Mrs. Bart, 1435 Crestwood
Young, Mrs. C. C., 1730 Murphy Blvd.

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Bai, Mrs. Sangzin, 24 Tree Brook Dr., Crystal City 63019
Blank, Mrs. Michael K., Star Rt. W., De Soto 63020
Bonifacio, Mrs. Andres, 121 Mississippi Ave., Crystal City 63019
Conant, Mrs. James, Rt. 2, Summer Set Lake, De Soto 63020
Deles, Mrs. Vincente D., 121 Mississippi Ave., Crystal City 63019
Donnell, Mrs. Robert H., 112 Mississippi Ave., Crystal City 63019
Judge, Mrs. Walter T., 1004 Taylor Ave., Crystal City 63019
Mayfield, Mrs. J. Logan, 106 Mississippi Ave., Crystal City 63019
Park, Mrs. Ouk J., 105 Walnut, Festus 63028

### JOHNSON COUNTY
### (Warrensburg 64093)

Cooper, Mrs. R. Lee, 712 Laurel
Cooper, Mrs. Robert, II, 801 E. Gay
Damron, Mrs. O. H., 308 Jones
Falkner, Mrs. Albert L., Rt 1
Hanna, Mrs. Hugh, Rt. 5, S. Mitchell
Johnson, Mrs. Charles S., 502 Hurricane Hill
Jones, Mrs. Keith O., 711 S. Holden
Lederer, Mrs. Charles M., 617 Clark
Maxson, Mrs. T. Reed, Arilen Acres
Ragland, Mrs. Jerry, Rt. 4
Reynolds, Mrs. Wayne, 604 N. Hwy 13 64093
Sicat, Mrs. Alfonso V., Rt. 4

### LAFAYETTE-RAY COUNTIES

Brady, Mrs. Hugh, Concordia 64020
Cook, Mrs. Thomas B., Richmond 64085
Cope, Mrs. Joseph S., Lexington 64067
Crozier, Mrs. Frank, Sr., Rt. 2, Richmond 64085
Davault, Mrs. George, Rt. 4, Box A 22, Richmond 64805
Kelling, Mrs. Jordan, Waverly 64096
Kuangparichat, Mrs. Manoch, Rt. 1, Box 165-B, Lexington 64067
LaHue, Mrs. William, Sleepy Hollow Dr., Lexington 64067
Meyer, Mrs. Jerry, 302 Sunset Hill Dr., Concordia 64020
Pavlu, Mrs. Robert R., 14 W. 13th, Carrollton 64633
Riley, Mrs. Charles, Rt. 4, Box A13, Richmond 64085
Vajaranant, Mrs. Manit, Rt. 1, Box 164 64067
Ward, Mrs. Joe W., 1004 Francis, Lexington 64067

### MILLER-MORGAN-MONITEAU COUNTIES

Buehler, Mrs. Carl T., Eldon 65026
Fulks, Mrs. Richard B., California 65018
Gallagher, Mrs. Lionel M., California 65018
Gunn, Mrs. Jack, Versailles 65084
Hall, Mrs. C. Robert, 2 Country Pl., Versailles 65084
Latham, Mrs. Kenyon, 200 S. High St., California 65018
Lyle, Mrs. Ray, 209 S. Maple, Versailles 65084
Shelton, Mrs. E. O., 104 W. Newton, Eldon 65026
Washburn, Mrs. J. L., 108 W. Washington, Versailles 65084

### PETTIS COUNTY
### (Sedalia 65301)

Azan, Mrs. Kenneth, 2608 W. 32nd
Block, Mrs. Jerome E., Rt. 2
Boger, Mrs. John W., 2803 Skyline Dr.
Braverman, Mrs. Elliott M., Rt. 3, Walnut Hills
Brazos, Mrs. John, Rt. 6, Box 137
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Cole, Mrs. William R., Rt. 1, Smithton 65350
Edmonds, Mrs. Robert, 1601 W. Broadway
Edwards, Mrs. David R., 1619 S. Moniteau
Eldenburg, Mrs. Donald, Rt. 2
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Farkas, Mrs. J. Robert, Rt. 3, Box 287-B
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Hopkins, Mrs. Thomas J., 1506 W Broadway
Horochowski, Mrs. Alex, 711 W. Broadway
Lackey, Mrs. J. M., 1718 S. Ingram
Lamy, Mrs. John, 400½ Dal-Whi-Mo Ct.
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Roberts, Mrs. Paul A., 110 W. Marshall, Sweet Springs 65351
Stauffacher, Mrs. Gordon C., 1313 W. Broadway
Stewart, Mrs. Robert H., 201 Driftwood Dr.
Stockwood, Mrs. Robert C., Rt. 3
Sull, Mrs. Won J., 2605 Plaza
Van Dyke, Mrs. Elmer, Rt. 4
Worley, Mrs. Charles A., 102 W Ray, Sweet Springs 65351

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Hetlage, Mrs. Louis P., 21 Burgundy Dr., Lake St. Louis 63367
Muenster, Mrs. Vincent, 29 Shawnee Dr.
Rother, Mrs. Paul, ;7 Elmwood Park
Sill, Mrs. William, 235 Shelburne
Szoko, Mrs. Edward, 151 Shelburne Ct.
Wipfler, Mrs. Earl, 405 Duckett

### ST. LOUIS CITY
### (St. Louis)

Abel, Mrs. Oliver, III, 6449 Wydown 63105
Arnot, Mrs. John P., 28 Countryside La. 63131
Barden, Mrs. Frank, 41 Beaver Dr. 63141
Bartlett, Mrs. Willard, Sr., 6459 Wydown 63105
Benjamin, Mrs. Durand, 12567 Chardin Pl., Apt. 3 63124
Bergman, Mrs. Hugo F., 2920 Moniteau Dr. 63121
Bohigian, Mrs. George, 21 Roclare La. 63131
Bradley Mrs. F. R., 7404 Oxford Dr. 63105
Brennan, Mrs. George A., 10546 Hanford 63128
Brennen, Mrs. Robert A., 6030 Highfield 63109

8rodeur, Mrs. Armand E., 400 8ambury Way 63131
8rown, Mrs. Seymour, 2421 8axton Way, Chesterfield 63017
8runs, Mrs. Kenneth, 15046 Claymoor Court, Apt. 7, Chesterfield 63017
Budd, Mrs. John J., Jr., 501 Overhill Dr. 63130
8urroughs, Mrs. W. H., 7327 Pershing 63130
8urst, Mrs. Donald O., 61 Trent Or. 63124
Carney, Mrs. Joseph, 6625 Penrod 63139
Cherre, Mrs. Charles J., 10 Ridgetop 63117
Ciapciak, Mrs. Stanley, 30 Log Cabin Or. 63124
Costa, Mrs. Oominic, 10 Devondale 63131
Dewald, Mrs. Paul A., 60 Conway La. 63124
Dorton, Mrs Robert, 8 Fordyce Manor 63131
Edwards, Mrs. Joseph, 610 W. Polo Dr., Clayton 63105
Eigel, Mrs. Edwin G., 10111 Hilltop Or., Apt. 80 63128
Feller, Mrs. Harold, 5834 Bermuda Rd. 63121
Finn, Mrs. M. E., 47 Portland Pl. 63108
Fitzgerald, Mrs. Leo, 7219 Cornell Ave 63130
Franklin, Mrs. Max, 585 Coeur Oe Royale, Apt 401 63141
Gandlmayr, Mrs. J. M., 13600 Peacock Farm 63131
Ganter, Mrs. George E., 233 Woodbourne Dr. 63105
Glaser, Mrs. Martin J., 3550 Hawthorne Blvd. 63104
Glick, Mrs. Harry N . Friendship Village, 15201 Olive 8lvd., Apt. 461, Chesterfield 63017
Goldman, Mrs. Melvin, 8650 8arby La. 63124
Green, Mrs. William R., 10311 N. Sunswept 63141
Gresick. Mrs. Robert, 11 Coach-N-Four 63131
Grogan, Mrs. Frank, 4166 Flora Pl. 63110
Gunn, Mrs. Walter, 6742 Itaska 63109
Haddock, Mrs. James, 111 Firwood, Webster Groves 63119
Harkins, Mrs. William, 7 Kingsbury Pl. 63112
Hassett, Mrs. Henry A., 4440 Lindell 63108
Hawk, Mrs. 8ray, 3534 Hawthorne 63104
Haynes, Mrs. Pugh, 8006 Gannon 63130
Henschel, Mrs. Eugene, 55 8roadview, Clayton 63105
Hilbert, Mrs. Paul, 5701 Pernod 63109
Hogan, Mrs. Patrick, 9036 Laurel Crest 63126
Hollo, Mrs. Vencel W., 8 Country Estates 63131
Huck, Mrs. Richard, 11 Goodwin La 63124
Jensen, Mrs. Joshua, 3 8razilian Ct. 63124
Jones, Mrs. James H., #1 Country Aire 63131
Jones, Mrs. Otey, 2010 Longfellow 63104
Karl, Mrs. Michael M., 14 Thorndell Dr. 63117
Kendig, Mrs. John, 841 Rolfe Or. 63122
Klein, Mrs. Saul J., 11 Huntleigh Oowns 63131
Kloecker, Mrs. Richard J., 1022 Hampton Park 63117
Kneal, Mrs. Ellsworth, 725 S. Skinner 63105
Knight, Mrs. William A., Jr., 12 Briar Cliff 63124
Koon, Mrs. 8ernard T., 774 Wenneker 63124
Kountz, Mrs. William 8., 2619 Gurney Ct. 63110
Kowert, Mrs. Edward H., 330 Planthurst Dr. 63119
Krojanker, Mrs. Rolf J., 1060 Purdue 63130
Kuhlman, Mrs. Robert E.. 12 Upper 8arnes Rd. 63124
Lembeck, Mrs. Joseph A., 4103 Flora Pl. 63110
Lerwick, Mrs. E. R., 40 Portland Pl. 63108
Lewis, Mrs J. Eugene, Jr., 7129 Kingsbury Ave. 63130
Lohr, Mrs. Curtis H , 300 S. Grand Ave. Apt. 1008 63103
Lottes, Mrs. J. Otto, 1028 Winwood Or 63124
Machek, Mrs. Otakar, 16 Carrswold 63105
MacNish, Mrs. James M., 229 Bompart 63119
Mathae, Mrs. George H., 3167 S. Grand Blvd. 63118
Mendonsa, Mrs. Lawrence E., 138 Ridgecrest Or., Chesterfield 63017
Merenda, Mrs. Sam J., 1215 Kings Glen Ct. 63131
Michael, Mrs. Vernon, 45 Huntleigh Woods 63131
Montgomery, Mrs. A. F., 18 Southcote 63144
Morfit, Mrs. John C., 7627 Wydown Blvd. 63105
Mowrey, Mrs. William, 7071 Lindell Blvd. 63130
Muether, Mrs. Raymond, 1509 Hedgeford Dr., Chesterfield 63017
Neun, Mrs. William F., 5B62 Oelor 63109
Niesen, Mrs. Frank, 1304 Brynnwood 63124
Nye, Mrs. Robert, 4852 S. Broadway Blvd. 63111
Oppenheimer, Mrs. Henry E., 9444 Old 8onhomme Rd 63132
Orenstein, Mrs. Joseph M., 417 Jackson Ave. N. 63130
Ostapowicz, Mrs. Frank, 3 Hillvale Dr., Clayton 63105
Peden, Mrs. Joseph C., Jr., 51 Fair Oaks 63124
Peeler, Mrs. J. O., 10000 Knoll Crest Ct. 63136
Portugal, Mrs. A Q., 10222 Gregory Ct. 63128
Powers, Mrs. Pierce W , 4 Crestwood Dr. 63105
Pyne, Mrs. Herbert S.. 5329 Mardel Ave. 63109
Raybuck, Mrs. H E., Jr., 22 Rolling Rock Ct. 63124
Rendleman, Mrs. George F., 2 Vista 8rook 63124
Ries, Mrs. Douglas, 8 Portland Dr. 63131
Ritter, Mrs. Hubert A., 26 8riarcliff 63124
Rosell, Mrs. Louis V., 66 Conway Cove, Chesterfield 63017
Sanders, Mrs. Robert O., Four Mile Village, Santa Rosa Beach, Fla 32459
Schmidt, Mrs. Edwin H., 10240 Schuessler 63128
Schweiss, Mrs. John F., 1414 Westwind Dr. 63131
Seimers, Mrs. George, 12660 Lamplighter Sq. 63128
Sexton, Mrs. Daniel L., 14 Crestwood Or. 63105
Shah, Mrs. Anwar, 9810 Log Cabin Ct. 63124
Shaw, Mrs. Edward, 3105 Longfellow 63104
Sherwin, Mrs. Charles S., 3971 Flora Pl. 63110
Strominger, Mrs. Donald B., 701 Yale Ave. 63130
Stroud, Mrs. C. Malone, 3736 Rock Hill Rd., Birmingham, AL 35223
Sudholt, Mrs. Alfred F., Jr., Box 87, Grover 63040
Sullivan, Mrs. Clement J., 7740 Mohawk Dr. 63105
Sweet, Mrs. Herbert C., 3 St. James Ct. 63119
Thale, Mrs. Thomas, 351 Meadow 8rook, Ballwin 63011
Tjoflat, Mrs. Oliver E., 665 S. Skinker Rd. 63105
Tremain, Mrs. Irl G., 810 N. Albany Ave., Bolivar 65613
Virant, Mrs. John A., 119 S. Spoede Rd. 63141
Werner, Mrs. William A., 6015 Childress Ave. 63109
Wilucki, Mrs. Melvin R., 6455 Westway Rd. 63109
Witt, Mrs. Clyde M., 11 Deer Creek Woods 63124
Wittgen, Mrs. Edward M., 8901 Rock Forest Dr. 63123
Zink, Mrs. Oscar C., 9 The Orchards 63132

## ST. LOUIS COUNTY

Abelardo, Mrs. M. L., 1015 Terracerock Cir., Manchester 63011
Alex, Mrs. Morris, 18 Crosswinds 63132
Alvarez, Mrs. Ulises C., 635 Spring Meadows Dr., 8allwin 63011
Antoniou, Mrs. Chris, 13508 Clayton Rd. 63141
Aronson, Mrs. Abraham, 11 Conway La. 63124
Ayata, Mrs. Sedat, 41 Ladue Estates 63141
Ayrazian, Mrs. Vatche, #5 West Point La. 63131
8agby, Mrs. J. W., 7 Country Life Acres 63131
8ailey, Mrs. William Harold, 9157 E. Milton Ave., Overland 63114
Balster, Mrs. Vernon H., 10140 Sakura Or. 6312B
Bauer, Mrs. Robert, 11 Harneywold 63136
8ergman, Mrs. John F., 550 8onhomme Woods Dr. 63132
8erwald, Mrs. David M., 725 Champlix La., Creve Coeur 63141
Berwald, Mrs. Irvin I., 747 Old Bonhomme Rd. 63132
8owles, Mrs. Robert, 754 Gabriel Ct., Kirkwood 63122
8rown, Mrs. Sidney W., 1106 N. Hanley Rd. 63130
Burnside, Mrs. Charles, 750 N Taylor, Kirkwood 63122
Cabral, Mrs. Galileu, 15244 Lochcrest Ct. 63011
Cacioppo, Mrs. Joseph E., 1525 Hampton Hall Dr., Chesterfield 63017
Carlson, Mrs. Arne E., 89 Pebblebrook La., Creve Coeur 63141
Catanzaro, Mrs. R. E., 412 Tregaron Pl. 63131
Chinsky, Mrs. Murray, 7200 Colgate Ave., University City 63130
Codilla, Mrs. Sostenese G., 1005 Parkwatch Dr., 8allwin 63011
Costrino, Mrs. Joseph A., 12567 Conway Rd., Creve Coeur 63141
Oavidson, Mrs. Morris, 128 Frontenac Forest 63131
Oavis, Mrs. Edgar W., 936 Mansion Hill Or., Ballwin 63011
Debnam, Mrs. James W., 391 Madewood La., Chesterfield 63017
Del Rosario, Mrs. Horacio O., 19B4 Pick Fair Or. 63141
Dennison, Mrs. Carl F., 52 8riarcliff 63124
Diehr, Mrs. Maurice A., 28 Dromara Rd., LaOue 63124
Oiestelhorst, Mrs. James, 12547 Whispering Hills La., Creve Coeur 63141
Di Pasco, Mrs. Oonald J., 51 Magnolia Dr. 63124
Dowell, Mrs. George H., Jr., Briarfarm La. 63122
Dumadag, Mrs. Virgilio P., 2280 Whitby Rd., Chesterfield 63017
Exharou, Mrs. Klark, 106 Springbriar Or., Chesterfield 63017
Fischer, Mrs. John, 18 Cricklewood Pl., Frontenac 63131
Fletes, Mrs. James W., 5601 Lindell Blvd. 63112
Floro, Mrs. Mariano N . 110 S. Graeser Rd., Creve Coeur 63141
Forsman, Mrs. Waldo W., 4128 S. Lindbergh 8lvd. 63127
Fox, Mrs. Leon J., 903 S. Warson Rd. 63124
Friedman, Mrs. Ira J., 22 Ridgemoor, Clayton 63105
Fuchs, Mrs. George J., R.R. 2, Box 183, 8arnett 65011
Gall, Mrs. Ira C., 8989 Moydalgan Rd. 63124
Gearhart, Mrs. Wilbur H., 14084 Oeltona Dr., Chesterfield 63017
Gomez, Mrs. Cesar A., 18 Portland Dr., Frontenac 63131
Goodman, Mrs. Nathaniel, 9 Scarsdale La., Richmond Heights 63117
Hallazgo, Mrs. Santiago Y., 14540 Coeur O'Alene Ct., Chesterfield 63017
Hantz, Mrs. Oscar, 12B91 Castleton Ct. 63141
Hardy, Mrs. Patrick J., 14300 Ladue Rd., Chesterfield 63017
Herzog, Mrs. G. M., 9 Wendover 63124
Hobbs, Mrs. John E., 25 Woodcrest Dr. 63124
Ismirlian, Mrs. Grant, 13439 Mason Valley Court 63137
Kabir, Mrs. M. A., 40 Lake Forest 63117
Kamuran, Mrs. Ozgoncu, 332 Laduemont, Creve Coeur 63141
Kendis, Mrs. Joseph 8., 19 Warson Terr. 63124
Kimelman, Mrs. Nathan, 21 Granada Way 63124
King, Mrs. E. E., III, 2915 8ellerive Or., Normandy 63121
Knight, Mrs. Franklin, 11465 Fairlane Or. 63136
Korenblat, Mrs. Philip, 11249 Tureen Dr., Creve Coeur 63141
Laird, Mrs. John, 604 Chartier Dr. 63135
Lewin, Mrs. Wilbur H., 8 Ridgecreek Rd. 63141
Linder, Mrs. Howard E., 15275 Denwoods Dr. 63011
Liss, Mrs. Jay L., 22 Crestwood Dr., Clayton 63105
Luehrs, Mrs. Robert O., 14471 8antry La., Apt. 2, Chesterfield 63017
Lund, Mrs. Herluf G., 58 Portland Or. 63131
Luther, Mrs. George A., 177 Ladue Oaks Ct. 63141
Magness, Mrs. Guy N., 7727 8lackberry La., University City 63130
Malles, Mrs. A. Conrad, 6B Woodoaks Trail 63124
Mayer, Mrs. Robert A., 2442 White Stable Rd., Town & Country 63131
McLean, Mrs. Royal C., 520 W. Jewell Ave., Kirkwood 63122
Meador, Mrs. James R., 10367 Oxford Hill Or., Apt. 15 63141
Meadows, Mrs. C. Douglas, 12341 Boothbay Ct. 63141
Meneses, Mrs. Orlando G., 1857 Bopp Rd., Oes Peres 63131
Merenda, Mrs. Sam, 1215 Kings Glen Ct. 63131
Meyer, Mrs. Jay, 1146 Conwyck, Frontenac 63131
Mezera, Mrs. Raymond A., 7345 Whitehaven Or., Affton 63123
Middleton, Mrs. Jerry N., 23 Claremont La. 63124
Miles, Mrs. Paul W., 15 Ridge Creek Rd., Creve Coeur 63141
Miller, Mrs. Charles, Jr., 206 N. Fillmore Ave., Kirkwood 63122
Molden, Mrs. Charles A., 36 Bellerive Acres, Normandy 63121
Montes, Mrs. Arturo, 11542 Rosary 63138
Moore, Mrs. William E., 452 G. Chapel Ridge Dr., Hazelwood 63042
Mueller, Mrs. Robert J., 40 Huntleigh Woods 63131
Murphy, Mrs. John, 7245 Princeton Ave. 63130
Nakada, Mrs. James R., 2 Huntleigh Oowns 63131
Ott, Mrs. Harold J., 29 8opp La. 63131
Ottolini, Mrs. James L., 12523 Trammell La. 63141
Pennoyer, Mrs. James, 117 Plant Ave., Webster Groves 63119
Perry, Mrs. William O., 2357 8roadmont Court, Chesterfield 63017
Phillips, Mrs. Hanford, 215 Graybridge Rd. 63124
Probst, Mrs. Raymond E., 23 Godwin La. 63124
Rachlin, Mrs. Maxwell, 42 Rio Vista Or. 63124
Redington, Mrs. James C., Jr., 1 Tuscany Park 63105
Reiches, Mrs. Aaron J., 11 8razillian Ct. 63124
Reiter, Mrs. Frederico B., 12844 Somerton Ridge, Creve Coeur 63141
Repp, Mrs. Theodore J., Jr., 81 Bellerive Acres 63121
Roberts, Mrs. Harold K., 434 S. Hanley Rd., Clayton 63105
Robertson, Mrs. Frank G., 642 N. Forest Ave., Webster Groves 63119
Roufa, Mrs. Joseph, 12390 Montsouris Or. 63141
Rubin, Mrs. Robert, 411 Tregaron Pl. 63131
Ruhling, Mrs. Rudy, 6 Webster Knolls, Webster Groves 63119
Schattyn, Mrs. J. Martyn, 9 Huntleigh Oowns 63131
Schlansky, Mrs. Seymour, 612 Fairways Circle 63141
Schwartz, Mrs. Melvin M., 61 Lake Forest, Richmond Heights 63117
Schwarz, Mrs. Luis, 8145 University Or. 63105
Shepherd, Mrs. Charles T., 10 Covington Meadows 63132
Simril, Mrs. Wayne A., 21 Somerset Oowns 63124
Sisk, Mrs. James C., 146 Frontenac Forest 63131
Speno, Mrs. Angelo A., 11815 Point Oak Or. 63131
Spraul, Mrs. James H., 43 Chaminade Park 63141
Staehle, Mrs. Melvin E., 7325 Ravinia Or., Normandy 63121
Steiner, Mrs. A. J., 8 Country Aire 63131
Sutter, Mrs. Richard A., 7215 Greenway Ave., University City 63130
Toon, Mrs. Thomas J., 3932 Canterbury Or. 63121
Valach, Mrs. Frank J., 4 Nassau Circle, Creve Coeur 63141
Vitale, Mrs. Nicholas S., 614 Coachlight La., Hazelwood 63042
Walker, Mrs. Harvey, Jr., 8142 Amherst Ave., University City 63130
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Yanow, Mrs. Mitchell, 8 Rolling Rock La., University City 63124

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Knipschild, Mrs. 8edford F., 505 N. Brunswick
McBurney, Mrs. C. Alex, 927 Hurt, Slater 65349
Papreck. Mrs. K. Thomas, 831 E. Eastwood
Raynor, Mrs. Richard C., Rt. 4
Reid, Mrs. James A., 310 E. Rosehill
Roehrs, Mrs. Marvin Emil, 756 E. Eastwood
Simmons, Mrs. Sterling P., Mar-Saline Manor

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Smith, Mrs. Rollin, 620 W. Main, West Plains 65775
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Wall, Mrs. Joe A., 320 Cherry Ave., Houston 654B3
Wiles, Mrs. Jack, 1212 W Broadway 65775

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Fleming, Mrs. J. Will, Jr., 7 Urbandale, Moberly 65270
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Huber, Mrs. L. E., 107 Brinkerhoff, Moberly 65270
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# 1978-1979 Policy Manual of the Missouri State Medical Association

*This manual shall be a guide for MSMA members to the stand taken by the House of Delegates of the Missouri State Medical Association on issues involving Association policy.*

*The manual will be updated and revised according to House actions. The date in parentheses following each policy statement denotes the year it was adopted by the House.*

### Abortion

An abortion should be considered illegal if performed by anyone other than a licensed physician in a place other than a licensed hospital. (1970)

### Acupuncture

The MSMA urges the Missouri State Board of Registration for the Healing Arts to utilize such legal and statutory powers as may be available to declare that the principles apparently involved in the practice of acupunture and shiatsu, if found to be scientifically valid and medically beneficial would fall under the definition of the practice of medicine. (1973)

### Board of Healing Arts

The State Board of Healing Arts should be provided with a wide range of discipline powers including requiring errant doctors to seek counseling or additional education. Also, every state should be informed when any doctor has his license suspended, revoked or is placed on probation. (1976)

The MSMA opposes any legislation which would dilute the licensing power of the State Board of Registration for the Healing Arts to license those physicians of good ethical and moral character. (1975)

### Certificate-of-Need

Any Certificate-of-Need law in Missouri should completely exempt private physicians and their offices from provisions of the legislation and contain a dollar limit of at least $500,000 before a Certificate is required in remodeling or constructing of health care facilities. (1976)

### Chemotherapeutic Costs

The MSMA should sponsor appropriate legislation that would make mandatory the offering of insurance coverage for reimbursement of chemotherapeutic agents, particularly on an outpatient basis. (1977)

### Chiropractic

It is the position of the medical profession that Chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease. Chiropractic constitutes a hazard to rational health care in the U. S. because of the substandard and unscientific education approach to disease causation. (1969)

### Community Professional Directories

It is not unethical for a physician to authorize the listing of his name and practice in a directory for professional or lay use which is intended to list all physicians in the community on a uniform and non-discriminatory basis. The listing shall not include any self-aggrandizing statement or qualitative judgment regarding the physician's skills or competence. The *American Medical Directory* provides an example of the kind of information that may be properly listed in national as well as community directories for health service personnel. Likewise, specialities or specialty practices used in the *American Medical Directory* should set the pattern for specialty designations. (1975)

### Confidentiality

The MSMA encourages the enactment of legislation which would fully protect the confidentiality of medical records. (1977)

### Death — Definition

A person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous respiratory and circulatory functions. In the event that artificial means of support preclude a determination that these functions have ceased, a person shall be considered dead if in the announced opinion of a physician, based on ordinary standards of medical practice, he has experienced an irreversible cessation of spontaneous brain functions. Death shall have occurred at the time when the relevant functions ceased. (1976)

### Drugs — Generic Prescribing

The MSMA opposes governmental interference into the practice of medicine through mandated generic prescribing of drugs. (1976)

### Drugs — Use of Combination of

The Federal Food and Drug Administration should carefully study the prescribing habits of physicians before discontinuing a combination of drugs packaged together. (1974)

### Drunk Drivers

The MSMA agrees to cooperate with the Legislature or proper agencies to remedy the dangerous problem of drunk drivers. (1974)

### Education — Patient

The MSMA adopts the following guidelines for hird party reimbursement for patient education:

. The goal of patient education programs shall be to improve health and the delivery of health care services through cooperative efforts of informed patients and health professionals.

. Patient education programs shall be provided under the guidance of an educational committee comprised of members of the health professions, and administration, and consumers.

. Patient education committees will be responsible for the establishment, maintenance, and evaluation of all patient education programs.

. Patient education services shall consist of planned efforts, with stated goals and objectives, based upon identifiable needs of patients and the resources of the health professionals.

. Patient education services shall be provided under the direction of a practicing physician and a trained educator and must be appropriate to the immediate health needs of the patient.

Participation in such programs shall be by prescription of a practicing physician and shall be documented in the patient's chart. (1975)

### Education — School Health

Factual, academically founded courses should be developed and implemented by the Missouri Department of Education to teach human physiology and pathophysiology at the elementary and secondary levels of the school system. (1974)

County medical societies are urged to work with local school districts to assist in providing comprehensive health education programs and the state colleges of Missouri are urged to prepare qualified health instructors trained to integrate health concepts into all the courses they teach. (1972)

### Fireworks

The MSMA supports a ban on the sale of fireworks in Missouri. (1976)

### Fluoridation

The MSMA, realizing the medical importance of natural occurring fluorine taken in proper concentration into the human body, recommends the adding of fluorine to all drinking water systems in Missouri in the concentration of one part per million. (1972)

### Health Systems Agencies

All physicians must be mindful of the threat to quality medical care posed by Health Systems Agencies. Physicians should provide leadership through active involvement in the area HSA. (1977)

### Home Health Care

The concept of home health care and visiting nurses care as a proper and economical way to bring quality health care to Missouri citizens not requiring more expensive and acute care is favored by the Association. (1972)

### Hospital — Preadmission Certification

The MSMA will continue to oppose implementation of hospital preadmission certification. (1974)

### Insurance — Charge for Extra Claim Forms

Physicians should feel free to charge for the additional service of filing more than one insurance claim form, especially if a different claim form is required rather than a photocopy of the original claim form. (1973)

### Insurance — Maternity Coverage

The MSMA supports inclusion in all insurance policies for those in childbearing years of a clause providing complete maternity coverage.

In order to provide continuity of coverage, the following eligibility period should be written into all insurance policies concerning benefits for obstetric care: "A pregnancy which begins while the insurance is in force should be covered until the termination of the puerperium and until the newborn infant is discharged from the hospital to home care." (1974)

### Insurance — Mental Illness

The MSMA supports a state health insurance act which would require minimum inpatient and outpatient mental health benefits in all health insurance policies issued in Missouri. (1974)

### Laboratory — Collecting Fee

The MSMA supports payment under Medicaid to the physician for his service in collecting a specimen used for tests performed in an outside laboratory. (1977)

### Licensing — Felon

As a general rule, the MSMA opposes the granting of a license to practice medicine to any physician who has been convicted of a felony. (1973)

### Licensing — FMGs

The MSMA endorses the policy of accepting the "Fifth Pathway" for physician licensure in Missouri. (1975)

### Licensure — Federal

The MSMA opposes any moves to require Federal licensure of health manpower. (1976)

### Malpractice — Countersuits

Any Missouri physician found not to be negligent in a malpractice suit shall have the assistance of the MSMA in determining if there exists a reasonable basis for the physician to commence an action for malicious prosecution arising out of such case. (1976)

### Medical Examiner System

The establishment of the county medical examiner system as a replacement for the county coroner system is strongly recommended. (1971)

### Motorcycle Head Gear

The MSMA urges all motorcyclists to wear protective head gear (helmets) to prevent death and disability. (1977)

### National Health Insurance

Any system of national health insurance must b designed with the consultation and aid of practicing physicians with the welfare of the patient a the guiding principle. A mechanism should b provided so the patient realizes the value of medical services to the point of real participation in th payment for those services. (1974)

The MSMA endorses the American Medica Association's bill as the national health insuranc plan best suited to maintaining the high quality o American Medicine. (1976)

### Optometrists — Drugs

The Association opposes the expansion of the Missouri Optometric Act which would allow the us of drugs in the practice of optometry. (1977)

### Osteopaths — Association With

Medical doctors may consult or associate wit Doctors of Osteopathy and participate in postgraduate education specifically designed for thei needs. (1965)

### Osteopaths — Membership

Both local and state medical societies may accep for full membership osteopathic physicians wh are licensed to practice medicine in Missouri (1970)

### Physician's Assistants

A continuing study will be made with the purpos of discovering ways of giving legal status to Physician's Assistants which would be acceptable t physicians using Physician's Assistants and also t the MSMA in general. (1977)

### Primary Medical Care

Primary medical care shall be defined as only th care given by a licensed graduate of a medical osteopathic school. (1977)

### PSRO

The MSMA recommends a two-year trial perio for PSRO in government-owned and operate hospitals before the law is applied to the privat sector. A report on the benefits derived and th problems encountered would be made followin the trial period. (1975)

If the Department of Health, Education an Welfare fails to return control of PSRO to the loc level, the MSMA will promote non-participati by physicians, take appropriate legal action and these actions are unsuccessful, will work for th repeal of Public Law 92-603. (1975)

### Seat Belts

The MSMA favors passage of state laws requiring use of seat belts in motor vehicles. (1974)

### Second Opinions in Surgery

The MSMA, while realizing the value of consultation, opposes the concept of mandatory second opinions and supports the position that when second or more opinions are mandated by any party that this party is responsible for any consultation fee and the choice of consultant is the responsibility of the patient and/or the attending physician. (1978)

### Unpaid Accounts — Interest

It is not in the best interest of the public or the profession to charge interest on an unpaid bill or note for professional services not paid within a prescribed period of time nor is it proper to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection.

It is not improper, however, for a physician to add a service charge, equal to the actual cost of rebilling, on accounts not paid within a reasonable time. Patients must be notified in advance about the existence of this practice. (1975)

### Utilization Review — Participation

The MSMA supports the right of individual physicians voluntarily to elect not to participate in governmental review programs which they believe conflict with the principles of good medical practice when they have no contractual or ethical obligation to such program. (1976)

### Utilization Review — Reimbursement

In those hospitals which conduct utilization review of any inpatient care, compensation of physicians for such review is a legitimate expense. The cost of such review should be included in hospital rates and reimbursable costs regardless of the source of payment. (1976)

*If you have questions on these or other policy matters, please contact the Missouri State Medical Association, Box 1028, Jefferson City, Mo. 65102. Tel. — (314) 636-5151.*

**Remember These Dates!**

*The 121st*

# ANNUAL SESSION

of the

Missouri State Medical Association

will be held on

## APRIL 19-22, 1979

Chase-Park Plaza Hotel St. Louis

# Missouri Voluntary Health Agencies and Organizations

In some instances, patients of MSMA members are eligible to receive assistance from various Voluntary Health Organizations in the state.

Assistance may be in the form of free or subsidized special equipment, rehabilitation training, counseling, specialized care and information and many other areas.

In an effort to assist MSMA members in attaining assistance for their patients, the following list of Voluntary Health Organizations has been compiled. In some cases, a statewide organization is listed. In instances in which an organization is limited to a certain portion of the state, several organizations may be listed under one heading.

This list will be expanded and updated annually.

## ARTHRITIS

Arthritis Foundation, Eastern Missouri Chapter
P.O. Box 1144, St. Louis 63118
(314) 421-3550

Arthritis Medical Center of Kansas City
2727 Main, Kansas City 64108
(816) 221-5383

1. Diagnosis, evaluation and treatment of the rheumatic diseases.

Arthritis Foundation, Kansas City Chapter
2727 Main, Kansas City 64108
(816) 221-5383

1. Literature for arthritis patients.
2. Public and professional education programs.
3. Newsletter.
4. Individual and family counseling to eligible persons.

## BIRTH DEFECTS

National Foundation March of Dimes
P.O. Box 1403, Columbia 65201
(314) 449-0573

1. Perinatal seminars for physicians and nurses held three times per month across the state.
2. Perinatal reprint series, articles related to the improvement of the outcome of pregnancy.
3. Limited patient aid support on chapter level.
4. Educational materials and audio-visuals for distribution through hospitals, clinics and offices to community and professionals.
5. Computer information service for providing physicians with diagnostic information.

## CANCER

American Cancer Society, Missouri Division, Inc.
P.O. Box 1066, 715 Jefferson, Jefferson City 65101
(314) 636-3195

1. Trained volunteer visitation of mastectomies, ostomy patients and laryngectomies (with attending surgeon's permission).
2. Free loan of hospital beds, wheelchairs, commodes for home use.
3. Non-sterile cancer dressings.
4. Limited transportation services to and from treatment centers.
5. Limited assistance in the purchase of ostomy supplies.
6. Limited payment for pain medication (narcotics) for cancer patients.
7. Educational materials and audiovisuals on cancer prevention, diagnosis and treatment for public and health professionals.
8. Seminars for health professionals to update their knowledge and role in cancer prevention, diagnosis and treatment.

## CEREBRAL PALSY

United Cerebral Palsy Association of Missouri, Inc.
P.O. Box 611, Columbia 65201
(314) 449-2934

Extends services to all disabled persons:

1. Developmental training.
2. Diagnosis and evaluation at 27 cerebral palsy centers.
3. Family and interpersonal counseling.
4. Preschool education.
5. Communication skills.
6. Adult day care.
7. Recreation and social group skill.

## CRIPPLED CHILDREN

Easter Seal Society for Crippled Children and Adults of Missouri
8124 Delmar Blvd., St. Louis 63130
(314) 862-3000

1. Coordinates provision of services to physically handicapped through Regional Offices.
2. Information and Counseling on employment of resources.

3. Variety of services including equipment and appliances, preschool programs, camping and recreation, in some areas.
4. Financial assistance for purchase of equipment and therapy on casework basis.

### Cystic Fibrosis

Cystic Fibrosis Foundation, Gateway Chapter
7730 Carondelet, St. Louis 63105

Cystic Fibrosis Foundation, Heart of America Chapter
7920 Ward Parkway, Room 206, Kansas City 64114
(816) 363-5636

1. Free sweat testing and evaluation of Cystic Fibrosis Centers located in St. Louis, Kansas City and Columbia.
2. Assistance for drugs, laboratory work, x-rays, inhalation equipment and some hospitalization.

### Diabetes

American Diabetes Association, Heart of America Affiliate
616 East 63rd, Kansas City 64110
(816) 361-3361

American Diabetes Association, Greater St. Louis Affiliate
3839 Lindell Blvd., St. Louis 63108
(314) 533-4143

American Diabetes Association, Missouri Regional Affiliate
Box 11, Columbia 65201
(314) 443-8611

1. Professional seminar for new treatment information for physicians.
2. Classes for outpatients.
3. Literature provided by drug companies and American Diabetes Association.
4. Summer camp for diabetic youth.
5. Cookbooks for sale.

### Epilepsy

Missouri Epilepsy Federation
2337 S. Kingshighway, St. Louis 63110
(314) 771-1212

Greater Kansas City Epilepsy League
4049 Pennsylvania, Suite 301, Kansas City 64111
(816) 531-1247

1. Discount drug program makes anti-convulsants available at cost.
2. Medical identification bracelets and necklaces.
3. Counseling program including individual, family, vocational and referral to other resources.
4. Life insurance.

### eart

merican Heart Association, Missouri Affiliate, Inc.
601 E. Broadway, Columbia 65201
(314) 442-3193

1. Sponsor for medical research.
2. Sponsor educational programs on cardiovascular disease for all professionals.
3. Sponsor educational programs for public.
4. Assist in development of community service programs.
5. Referral for financial assistance or special services.

### Hemophilia

Bi-State Hemophilia Association
3109 S. Grand, St. Louis 63118
(314) 771-6080

1. Free summer camp for hemophiliac children.
2. Purchase of medical supplies.
3. Loan service for whirlpool baths and crutches.
4. Sponsor hemophilia clinic at Cardinal Glennon Hospital.

### Kidney

Kidney Foundation of Eastern Missouri and Metro East
7 North Brentwood Blvd., St. Louis 63105
(314) 863-5858

Kidney Foundation of Greater Kansas and Western Missouri
3600 Broadway, Suite 25, Kansas City, Mo. 64111
(816) 531-3760

1. Assist in providing dialysis treatment.
2. Source for referral for information.
3. Education of emergency personnel on use of artificial kidney machine.
4. Drug bank.
5. Professional Education.

### Lung

American Lung Association of Eastern Missouri
411 North 7th, St. Louis 63101
(314) 241-1554

American Lung Association of Western Missouri
2007 Broadway, Kansas City 64108
(816) 842-5242

1. Health education materials and services aimed at prevention of lung disease.
2. Publications on treatment of respiratory diseases.
3. Assistance to indigent patients for payment for diagnostic x-rays.
4. Transportation to chest clinic or hospital paid for qualified persons.

### Multiple Sclerosis

Multiple Sclerosis Society, Greater Kansas City Area Chapter
6501 Johnson Dr., Shawnee Mission, Kan. 66202
(913) 432-3926

Multiple Sclerosis Society, Mid-Mo Chapter
802 East Broadway, P.O. Box 1071, Columbia 65201

1. Weekly MS clinic at Kansas University Medical Center.

2. Patient equipment pool (purchase and loan).
3. Counseling.
4. Prevention dental clinic at University of Missouri-Kansas City weekly.
5. Home care course for family education.
6. Sexual counseling.
7. Referral to community resources.
8. Transportation.

### MUSCULAR DYSTROPHY

Muscular Dystrophy Association of America
308 W. Commercial, Springfield 65803
(417) 866-5117

Muscular Dystrophy Association, Inc., Missouri Valley Chapter
3947 State Line, Kansas City 64111
(816) 931-7750

Muscular Dystrophy Association
Central Missouri Chapter
811 Cherry, Room 311, Columbia, Missouri 65201
(314) 443-6013

Muscular Dystrophy Association, Inc., Mississippi Valley Chapter
1023 S. Big Bend Blvd., St. Louis 63117
(314) 644-2828

1. Free diagnostic testing for 35 neuromuscular disorders.
2. Payment for orthopedic appliances.
3. Payment for limited amount of physical therapy.
4. Payment for influenza inoculations.
5. Transportation assistance.
6. Free services supplied at outpatient clinics.
7. Genetic counseling.
8. Professional education.

### MYASTHENIA GRAVIS

Myasthenia Gravis Foundation, Inc., Kansas City Chapter
P.O. Box 5204, Kansas City 64112
(816) 276-8310

1. Outpatient clinic on referral from patient's physician for confirmation of diagnosis, consultation or patient maintenance.
2. Myasthenia gravis drug bank.
3. Professional and patient educational materials.
4. Free physician manual and nursing manual.

### GROWTH DISORDERS

Human Growth Foundation, St. Louis Chapter
Box 9959, Kirkwood 63122
(314) 429-6893

1. Counseling for families about growth disturbances.
2. Referral source for information regarding financial assistance and growth problems.
3. Assists National Pituitary Agency in collection of human pituitary glands.

### RED CROSS

American Red Cross, St. Louis Bi-State Chapter
4050 Lindell Blvd.
St. Louis 63108
(314) 658-2000

American Red Cross, Greater Kansas City
3521 Broadway
Kansas City 64111
(816) 756-2365

1. Offers a number of courses to lay people, including "Preparation for Parenthood," "Multiple Sclerosis Home Care Course," "First Aid," "Cardiopulmonary Resuscitation" and "Health in the Home."
2. Vital Signs Module I and II provide a means of teaching lay persons to measure their own temperature, pulse, respiration rate and blood pressure.

### RETARDED CITIZENS

Missouri Association for Retarded Citizens
230 W. Dunklin, Jefferson City 65101
(314) 634-2220

1. Clearinghouse for information on mental retardation.
2. Referral services.
3. Professional and public information and consultation available.
4. Day care centers, recreational programs and parent counseling.

### SUDDEN INFANT DEATH SYNDROME

St. Louis Sudden Infant Death (SIDS) Project
607 N. Grand, Suite 725, St. Louis 63132
(314) 531-4100

1. Provides and coordinates free support services, including information and counseling, to families experiencing the death of an infant due to SIDS.
2. Distributes SIDS educational materials.
3. Provides education and training to health professionals and first responders to the death of an infant (police, firemen, ambulance paramedics, etc.).
4. Public information and community education.
5. Referrals to community resources.
6. Parent/peer counseling.
7. Assists in developing statewide support services for SIDS families.

# "Without your help . . . I simply would not have made it through medical school"

(The following letter was received from a physician who, as a student, received financial assistance from the Missouri State Medical Association members who have contributed to the Missouri State Medical Foundation. It is printed with his permission.)

**Dear Doctor:**

*"Thank you very much for your thoughtful letter concerning receipt of my final payment on my medical student loan.*

*"I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester in medical school. Having always been, perhaps, more than adequately endowed with pride, it was a lesson in discipline and humility to go seeking financial assistance. However, the effort brought me in contact with some very nice people who really do a lot to keep one's faith in human nature alive.*

*"I sincerely appreciate the efforts which you and others put into the Missouri State Medical Foundation and all other student loan funds. You should feel a quiet heroism for the assistance you lend to needy students . . . without your help, I simply would not have made it through medical school."*

The Missouri State Medical Foundation—MSMF—was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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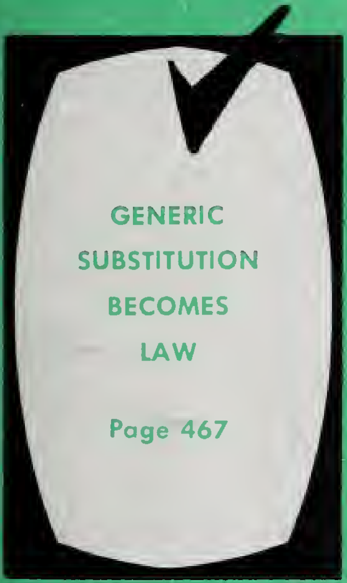

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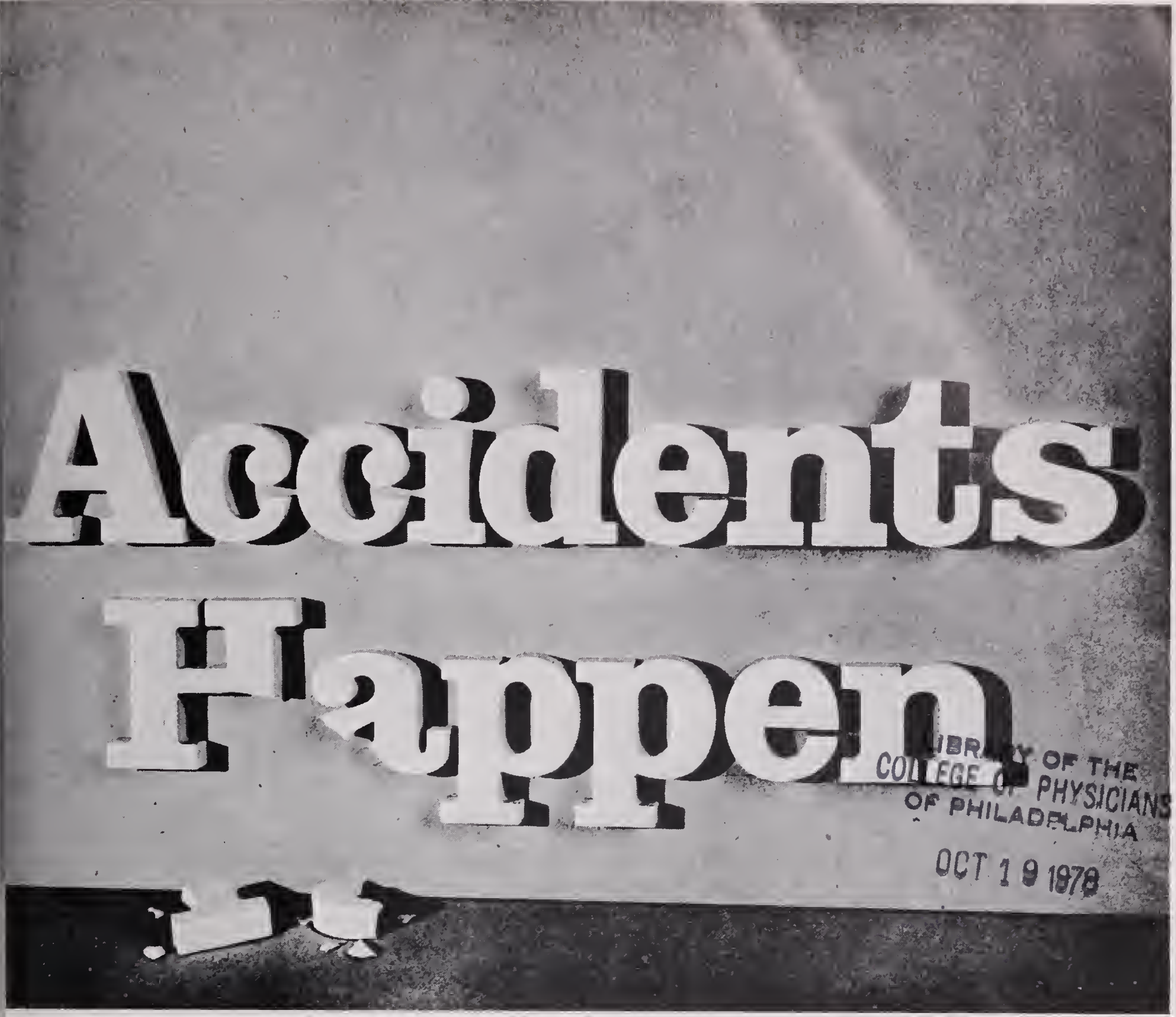

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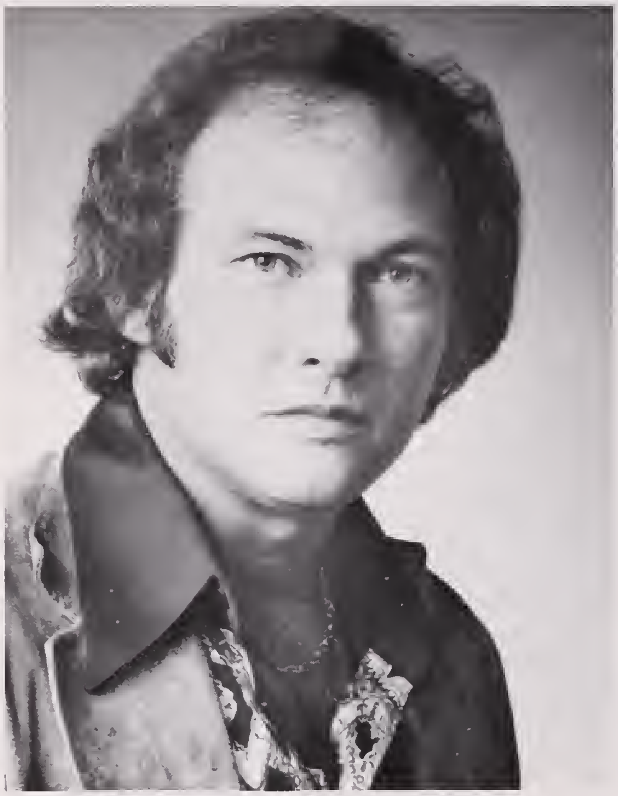

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6. 98% of all doctors are committing financial suicid through improper money management.

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- *Tips on making your wife a better business partne
- *Pro and con discussion of
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  - b. Insurance as protection
  - c. Stocks, Bonds, Savings Accounts, C.D.'s
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  - e. Purchasing or developing income properties
  - f. Professional incorporation
- *The what and how of "tax free" dollars
- *Building the $1,000,000 estate
- *Differences between speculation and investment
- *Money-making attitudes
- *How to establish your banking relationships
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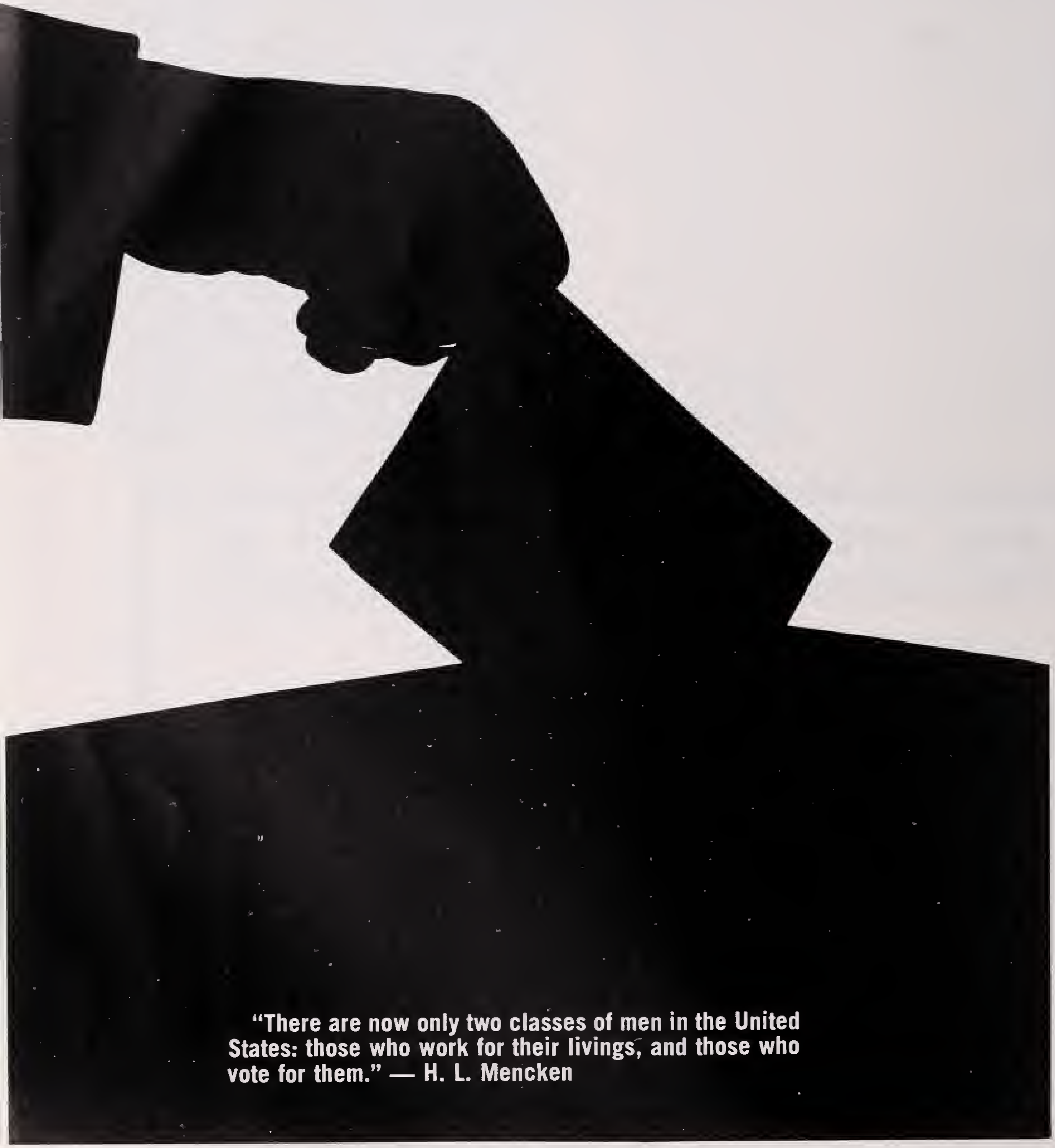
## Photo-Comment by James W. Clawson, M.D., Springfield



"There are now only two classes of men in the United States: those who work for their livings, and those who vote for them." — H. L. Mencken

# Editor's Corner

## VOTE NOW! COMPLAIN LATER!

Before long, there will be an important election. Most of you who read this will do nothing about it. For better or worse, this is the American Way. We think it is a most unfortunate way.

This lackadaisical attitude about voting in America is hard to understand. It is a poor commentary on our mass educational movement and on about everything else which is supposed to prevail in a mature and enlightened society.

A friend of mine thought this over. "By comparison," he said, "at a time of crisis, the whole, crazy French nation bounds out of bed and gaily frolics to the polls to topple their government." "But they do vote," he continued, "95% of them! By contrast, only an issue of dire and impending catastrophe can get more than 35% of Americans off their duffs and into the ballot booths. Instead of exercising their franchise, they spend the next years raising hell about what's going on and blaming conniving politicians."

In 1872, Boss W. M. Tweed said, "As long as I count the votes, what are you going to do about it?" Now we have a system which, except in the extreme, gets the votes counted properly, but hardly anyone bothers.

It's a very funny world! Maybe the French aren't as crazy as my friend thought.

**Wilfred E. Wooldridge, M.D.**

# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**THE AMA URGED** the private sector to "continue to work to expand private health insurance availability and coverage, to maintain quality of care, and to voluntarily restrain the cost of care." In a statement to the press following the announcement of President Carter's NHI principles in July, AMA EVP James H. Sammons, M.D., said that "many of the NHI principles announced by the President seem to be consistent in whole or in part with similar principles that have been endorsed by the American Medical Association." But, he added, "We have reservations about a reference to the need for a major reform to the health system without a better understanding of the details of that reform. We agree with the need to restrain increases in the cost of care. . . . In any such program care must be taken that quality and access to care are not adversely affected."

**THE BLUE CROSS** and Blue Shield Association approved a three-year plan aimed at improving their share of the health insurance market. The priority recommendation is a redesigned national master contract, a Blues official said, with serious consideration to be given to cost-sharing features.

**THE AMA SUPPORTED** legislation which would extend for one year special payment to eligible physicians and dentists in the VA health care system. In a letter to the House Subcommittee on Medical Facilities and Benefits, the Association urged congressional efforts "to provide more adequate and equitable compensation" for physicians and dentists in the program.

**FIRST PLACE WINNERS** in the third annual Medical Journalism competition conducted by Sandoz Pharmaceuticals of New Jersey are: *Michigan Medicine*, in the category of state medical journals with a circulation over 3,000; *The Journal of the Oklahoma State Medical Association*, for state medical journals with a circulation under 3,000; *The Greater Kansas City Medical Bulletin*, for county and city medical publications with a circulation over 2,000; and *Tulsa Medicine*, for county and city journals with a circulation under 2,000.

**THE CHAMBER OF COMMERCE** of the United States will launch a national action program on health, designed to help employers contain costs in their own communities. The basis for the program will be the National Chamber Foundation's health care study.

**HEALTH CARE PROVIDERS** and hospitals are widely respected and much more highly regarded than all other major private sector and governmental institutions, a Harris poll conducted for Hospital Affiliates International — the nation's largest hospital management firm — has found. The Harris study included interviews with a national cross-section of 1,503 adults and representative samplings of physicians, hospital administrators and trustees, executives of health insurance companies and congressmen on health-related committees. Of those polled, some 60% indicated more money should be spent on health care — even at the expense of welfare and defense.

**SIX STATE GOVERNMENTS** in Indiana, Kentucky, Nebraska, Oklahoma, Texas and Wyoming filed suits challenging the FTC's authority to preempt state laws restricting the advertising of prices for eyeglasses and eye examinations. Similar suits were filed by the AMA and the American Optometric Association.

**AVAILABLE FROM AMA:** *Let's Talk About Health Insurance*, contains information on individual and group health insurance policies for physicians and the public. Single copies of the booklet (MP-1) are free from the AMA Dept. of Professional Review. . . . *Why Health Education in Your School?* (OP 331) examines the benefits of a school health education program. Cost is 45¢ ea. for 1-99 copies; 25¢ ea. for 100-499 copies; and 23¢ ea. for 500 or more. . . . *Smoking: Facts You Should Know* (OP 42) weighs the hazards of smoking. Cost is 50¢ ea. for 1-99 copies; 40¢ ea. for 100-499 copies; 30¢ ea. for 500-999 copies; and 29¢ ea. for 1,000 or more. Write AMA, P.O. Box 821, Monroe, Wis. 53566.

# MSMA NEWS ROUND-UP

September, 1978

# Interim Session — November 4/5

The schedule for the third Interim Session of the Missouri State Medical Association has been set and component medical society delegates and alternates have been sent their official notifications.

All MSMA members are invited to attend the Interim Session, which will be held November 4-5 (Saturday and Sunday), 1978, at the Ramada Inn in Cape Girardeau.

This year Delegate Registration will begin at 8:30 a.m., Saturday, November 4. The Opening Session of the House will be called to order at 11:30 a.m., Saturday. Following presentations by MSMA President John N. Martin, M.D., and other reports of importance, all recommendations and resolutions will be referred to Reference Committees.

Reference Committees will meet immediately following the Opening Session and will continue as late as necessary. Reference Committee reports will be prepared in time for consideration Sunday morning.

MSMA members are welcome to attend all sessions of the House and to voice their opinions on resolutions and reports before the Reference Committees on Saturday afternoon.

The Final Session of the House will begin with a breakfast at 7:00 a.m., Sunday. Immediately following will be House action on the reports of the Reference Committees.

Resolutions from component medical societies or MSMA members must be submitted to the MSMA Headquarters by October 4 to be included in the Delegate's Handbook.

Those members wishing to attend the Interim Session should clip the accompanying Reservation Card and mail it directly to the Ramada Inn, Rt. K at I-55, Cape Girardeau, MO 63701.

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## Revisions announced for Disability Insurance Plan

Our MSMA Group Insurance Program Administrators, Fred S. James & Company of Missouri, Inc., have announced revisions and improvements in our Office Overhead Expense Disability Insurance Plan.

The principal changes are these: an increase in the amount of coverage available from $2,000 to $3,000 monthly, a substantial reduction in the premium for ages under 40, a slight reduction for ages 40 to 49, and a slight increase for ages 60 to 69. Also, the retroactive to first day of disability provision under the 30-day waiting period plan will no longer be included.

Those members who now have the 30-day wait plan with the retroactive provision will be allowed to keep that plan if they so desire. The company, however, will no longer issue new policies with that provision. At the October 1 billing date, all insureds will receive a letter advising them about the new program and their options.

The importance of this type of protection for the disabled physician cannot be overemphasized with today's high costs of maintaining an office. For full information, contact your representative in Kansas City or St. Louis.

## MOMEDICO continues to have good membership response

MOMEDICO, the stock malpractice insurance company owned by the MSMA, is continuing to have good response among the Association membership. A report will be given on the company at the MSMA Interim Session in November.

At a recent meeting of the Executive Committee of MOMEDICO, it was decided that a claims prevention educational program consisting of publications, brochures and tapes should be considered. A Finance Committee is now being established and an Underwriting and Claims Committee is in the process of being established.

For further information on MOMEDICO, members are urged to write to the Missouri Medical Insurance Company, 100 North Broadway, St. Louis, MO 63102.

## Preparations underway for 1979 dues billing

Secretaries of all component medical societies have been notified recently regarding the dues billing form which will be used for 1979 local, state and AMA dues. The forms cannot be prepared until the amount of local society dues is known.

Some component societies have requested that MSMA again collect their dues at the state level for the coming year. This system worked well last year.

For those local societies on the new computer billing system, a bill will be sent to each local society member, the member will return his dues to the MSMA and the MSMA will issue a check to the component society Secretary monthly for all dues received. Societies interested in this billing method may contact C. C. Swarens at MSMA headquarters.

## MSMA opposes proposed chiropractic board rules

The Missouri State Medical Association has filed comments in opposition to proposed amendments of the rules and regulations of the State Board of Chiropractic Examiners, which were published in the August 1, 1978 **Missouri Register.**

Anyone is allowed to file statements in support of or in opposition to the proposed action with the board within 30 days after publication. The board will review comments prior to their meeting for consideration of adoption of the proposed amendments.

The proposed rules appear to be quite similar to the legislative changes proposed under Senate Bill 699. This bill was defeated in the last session of the Missouri General Assembly.

The first proposed rule change attempts to redefine the definition of the practice of chiropractic. The specific limitation of treatment to movable articulations of the human spinal column would be changed so that the board would be empowered to establish other diagnostic and adjunctive chiropractic procedures.

Two other proposed changes in rules would, in effect, allow the chiropractic board to broaden the scope of practice to include procedures and instruments "as approved by the board." Previously, the Legislature has set the standards of practice through statutory defintions and limitations. The MSMA believes the chiropractic board is now attempting a change through rule making.

## Members and spouses invited to PR conference

**Notices and programs describing the "MSMA Public Relations Conference," October 7-8, 1978 at Tan-Tar-A, were mailed earlier this month to Association, component medical society and Auxiliary officers.**

**However, all MSMA members and their spouses are invited to this workshop. The conference will offer practical advice about ways to work toward a better understanding between the medical profession and the public and to respond to bad press about medicine, as well as an opportunity to listen to some dynamic speakers.**

**For further information, please contact the MSMA headquarters.**

## 'Legislative Contact' program gearing up for 1979-80 session

The Action Committee on Political Affairs will soon begin seeking a list of "Legislative Contacts" for the 1979-80 session of the Missouri General Assembly. These contacts will be requested to speak to their state representatives and senators on issues of concern to the medical profession.

A mailing to prospective "Legislative Contacts" will be made following the November elections when the composition of the 1979-80 Legislature is known. The contacts will receive a weekly Legislative Report informing them of the details of the current status of bills which may affect medicine.

If any physician or spouse personally knows a legislator, has a legislator as a patient or is willing to contact a lawmaker, please contact the MSMA headquarters.

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**Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia.

Intravenous administration should not be given because of increased likelihood of side effects.

**Adverse Reactions:** On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

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**Adverse Reactions:** Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 μg/ml.
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*Special Feature*

# The Rural Family Doctor

By

**JORDAN A. KELLING, M.D.**

***Waverly***

YOU ARE MEDICAL STUDENTS but many of you are wondering, "Where shall I go?" If you have decided to specialize in family practice, you are weighing the pros and cons of rural versus urban practice. There are few, if any, reference books on the subject and I confess that I must base my remarks on my own personal experience of practicing in rural Missouri, giving a few opinions without trying to influence your final decision.

I did not embark on a career as a country doctor as a stranger. My recollections go back to the horse-and-buggy days when I would ride out to the surrounding farms with my father when he made his calls. Even after he had acquired his first car, a 1910 Maxwell, Dad still had to depend on the horse and buggy when the roads were a sea of mud or when the creeks were out of their banks. I remember sitting there in the buggy while my father would wade knee-deep to lead the horse across the swollen creek.

I was pretty lucky to start my practice with a new Model A Ford, although there were times when that engineering marvel could not get me to off-the-main-highway spots. The patients' families would meet me with a tractor to take me to the house. One family would leave its old horse tethered at the place from whence my Ford could no longer navigate. Without any help from me, the horse delivered me to the house. The horse's back was so broad that no saddle could fit him—so broad, in fact, that it was like a table where I could set my bag, and his shaggy coat provided comfort for me against the cold wind.

I do not regret that those so-called "good old days" are over. Now we have good country roads and comfortable cars. We also have ambulance service with well-trained personnel and radio contact available to us at all times. Now, in most cases, the patient can be brought to the clinic or hospital where much more can be done to help him than can, in most instances, be possible in his home. Most rural people know and understand this.

Yes, I have officiated in countless home deliveries. I'll never forget my surprise one day when I was sitting in a duck blind on the Missouri River and along came a man in an outboard motor boat to fetch me to his home where his wife was in labor. I went in my boots and hunting clothes. It was not long until the baby was delivered and the father piloted me back to the blind where I managed to bag my limit of mallards.

What they say about boiling water at home deliveries is entirely true. Women kept a good fire burning in the cook stove under a wash tub—I repeat, a wash tub—full of water. I usually needed a little of it. I never asked what they did with the rest of it.

If there had been time, the women had usually sewn newspapers together to protect the bed. There were often complications when a bed slat broke or fell out of place, making the position of the patient very unhandy for the attending doctor. Feather beds were always a complete nuisance.

We practiced without antibiotics and, somehow, a lot of our patients with pneumonia and other se-

*The accompanying article is a transcript of an address delivered by Dr. Kelling to medical students considering the "pros and cons" of rural vs urban family practice. He speaks from personal experience, drawing from his first experiences as a boy traveling by horse and buggy with his father, a rural physician, and from the early days of his own practice to emphasize what he sees today as definite advantages of rural family practice from both a professional standpoint and in regard to the quality of life. This presentation was made at the 1977 Annual Scientific Session of the Missouri Academy of Family Physicians and is reprinted with permission from the April, 1978 issue of the MAFP* Newsletter.

rious infections recovered. I know that my father had often prescribed large amounts of moldy bread for serious infections with amazingly successful clinical results. Little did he know then that he was using a crude form of penicillin.

But, enough of recollections. You are interested in the future. As a matter of fact, so am I.

Soon your first concern will be applying all you have learned during these school years to bring success in treating your patients and to build a constructive, rewarding life for yourselves and your families. What are your chances of accomplishing this in a rural setting?

I will give you some advice. (They say that giving advice is like kissing—it doesn't cost anything and it is a lot of fun.) Start your practice where there is a good, little hospital nearby that can offer adequate laboratory and x-ray facilities. There are many of them across the state—many were built with matching Hill-Burton funds. The hospital in which I practice is an exception because it is privately owned by the doctors. But, that is another story.

If you like your hometown and if such a facility exists there, you know they say that you can't beat a good man in his own hometown. I would not advise any young doctor to go to an isolated spot and try to carry on alone. If you do not have a partner, at least try to locate where there are others with whom you can take turns carrying the whole responsibility. R and R (rest and recreation) are as important for the family doctor as for the combat soldier. You will bring something valuable back to your patients if you can manage to have a little diversion now and then.

Right away, you should get to know and build up a fine circle of consultants in the various specialties. When you are in a rural location and treating what one doctor described as "specializing in treating skin and its contents," there will be cases for which you cannot or do not care to take entire responsibility. It will be a great asset if you can pick up the phone to refer such cases to these other specialists.

If your work is not also one of your favorite hobbies and if you do not find a greater challenge and mystery in the practice of medicine than you would find in some other field for which you may be qualified, I advise you not to enter rural practice. But, if these conditions do not apply to you, you will find great satisfaction in practicing in a small community. Many fundamentals of living are the same wherever you may be. For our part, we read the Kansas City papers, receive the Kansas City TV and radio programs and read the same magazines and books as the rest of the world. I putter in the house and in the yard when I have the time; my wife cooks, sews, gardens and pursues her various hobbies in a town of 800 just as she would if she lived in a metropolis. A noticeable exodus of city dwellers to more rural areas has provided a valuable social asset to small communities.

We do not wait in line at the post office or the bank. We try to schedule our medical practice so that there will be a minimum of waiting for our patients. However, if you have not already done so, the first thing you must learn is that sickness and accidents do not schedule themselves. You must meekly resign yourselves to that fact and live accordingly.

You will find that you might possibly have an advantage over your colleagues who practice in the city because you will know not only the physical facts about your patients, but you will know the histories of all the generations of your patients' families, their attitudes and their social conditions as well. You will know in advance what care your patients will receive in their home environments. You can advantageously be father confessor and advisor to members of a family.

Here is one example to illustrate this idea. My patient, a middle-aged woman, had resigned her good position at a university to come home to care for her invalid mother. She took a job below her status, working by day and tending to her mother's needs by night until her body and spirit were tired. You will find that fatigue can almost be a disease sometimes.

I recommended that she put her mother in a nursing home and that she check into the hospital for treatment. She protested that if she did such a thing, the family would "have a fit." Her family were all my old friends and my patients. Without any protest, they accepted my recommendations. The mother received good care, the daughter was saved from a physical and emotional breakdown and things soon returned to normal. By the way, a good knowledge of psychiatry will be a great help to you in family practice. I advise you to get as much foundation in that science as you possibly can.

I remember a former resident who was back home visiting when she became ill. She held a doctor's degree in nutritional science and taught in a university, but she said that my calling her by her first name was the greatest assurance and comfort she could ever have.

As a young doctor, you will find that you are the father image to many who are twice your age. There will be those, also, who will think you are only a school boy. I remember a patient who called in to the office shortly after my brother, Douglas, and I went into practice with my father. She said, "I'm sick and I need a doctor. And don't send either of the kids. I want the old man."

On the other hand, the reaction might be like that of one of my father's old patients who said, "Doc, I like you and I think that you are a good doctor and you've always taken good care of me. But I think now I'll have Douglas. He's younger. He knows more."

What will you encounter in a rural practice that would differ from an urban one? You will not get as many patients with injuries from industrial accidents, but there will be tractor and other farm machinery mishaps, many of them very bad, especially with cornpickers. You will have accidents associated with large farm animals. Rarely will the city doctor be called upon to treat the patient who has been kicked by a cow or gored by a bull. You will see quite a lot of women with bad cuts and burns during the canning season. I think you will probably see more motor vehicle emergencies. The rest, from OB and pediatrics to GC and geriatrics would probably run in the same proportion whereever you may be.

You wonder about living in a small town. While the government has taken over most of the social services in the cities, in the small town the volunteers are very much alive and active, improving the quality of living for young and old. In our village, there is baseball for boys and girls from five to 18 years old. There are even adult teams. This is all volunteer enterprise. Volunteers have provided tennis courts. Volunteers stepped in to form a swim club to build and maintain a 100-family pool. There is usually a golf course near enough to enjoy when you have the time for it. We have one just 10 miles from us and there are four more within 20 miles. Fishing and hunting are near at hand. When we hanker for some city entertainment, we can be parked downtown in Kansas City in less than an hour and a half.

The hillbilly-type temperament can be found in cities all over the United States as well as in the country. We have our share of these types and they add spice to the usual routine. However, people in the rural areas are becoming more and more sophisticated. Many, including farmers and their wives, are college graduates. They travel—their children go to college. About 50% of our own high school graduates go on to college or vocational schools, and the average would be higher if some did not step right into the ready-made business of the family farm.

This brings us to the schools your children will attend. You know that in Missouri, schools are rated as A, Double A and Triple A. Our school in a consolidated district to which children may go in buses (but never for some reasons for which a city child might be bused) is graded Double A because we lack an elementary school counselor, which would be superfluous for us, and because we offer only one foreign language instead of the prescribed two needed for a Triple A rating.

I consulted our school superintendent so that I could write with some authority about rural vs city schools. He said that the reason he chooses to work and have his children attend school in a rural area is that the child gets personal attention if anything goes wrong. It is just like a small town, he said, where everybody knows about it and an effort is made to help out. Our school will voluntarily give the BEST test (Basic Essential Skills Test) this year, but next year the test will be required in all Missouri schools. While it is too early to be sure, the general prediction is that the best scores will be made in the rural schools.

Rural schools are attracting a high type teacher these days because some teachers are becoming weary of the problems brought on by the lack of control in many of the urban schools. But any bright child who gets intellectual support and motivation at home will usually get along all right whatever his school.

I would like to add that I know of at least one large corporation whose policy it is to hire no one who comes from a town of over 5,000 population, and the boy who comes from the farm gets the top consideration.

Somewhere in this discussion I should mention the blessing of being spared having to drive through city traffic to get to the office or hospital. .

I shall not belabor the undeniably important subject of fair and adequate financial rewards for your work. Statistics abound on this theme which you might research through the AMA and publications such as *Medical Economics.* The concept of what is an adequate financial reward will differ according to the needs and desires of various individuals. For my own part, I have been pretty well satisfied for almost 45 years. No, I'll take some of that back. The

$10 per month we were paid as interns took some mighty tight budgeting. The $150 per month I earned as a resident looked like a fortune by comparison.

Not too long ago, medical publications set forth the proposition that family practice was on the wane and would eventually be phased out. Now, we see the pendulum swinging the other way. A high value is being placed on the role of the family physician in modern medicine.

My wife was giving a report at a medical auxiliary meeting and ended with the words, "I am full of my subject, but time obliges me to close now." The next doctor's wife who rose to speak began her remarks with, "Like Ruth, I am full of my subject. I am International Health Activities Chairman. We collect sample drugs."

My time has expired, but I am still full of my subject.

Thank you for this opportunity you have given me to think over and assess the field of rural medicine. Sometimes we "can't see the forest for the trees."

Vote!

---

## CORRECTION

**Donald Judd**
(1978-1979)

**Hugh E. Stephenson, Jr.**
(1978-1979)

On Page 431 under the heading, "Alternate Delegates" in the Aug. 15, 1978 Roster issue of MISSOURI MEDICINE, the pictures of Dr. Hugh E. Stephenson, Jr. of Columbia and Dr. Donald Judd of St. Louis were inadvertently transposed. The pictures should have appeared with the proper names as shown above.

**Brief Summary of Prescribing Information**
**Combined TEGOPEN®** (cloxacillin sodium)
**Capsules and Oral Solution**
For complete information, consult Official Package Circular. (12) TEGOPEN 9/11/75

**Indications:** Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**Important Note:** When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**Contraindications:** A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**Warning:** Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**Precautions:** The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**Adverse Reactions:** Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**Usual Dosage:** Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.:* INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

**Supplied:** Capsules—250 mg. in bottles of 100, 500 mg. in bottles of 100. Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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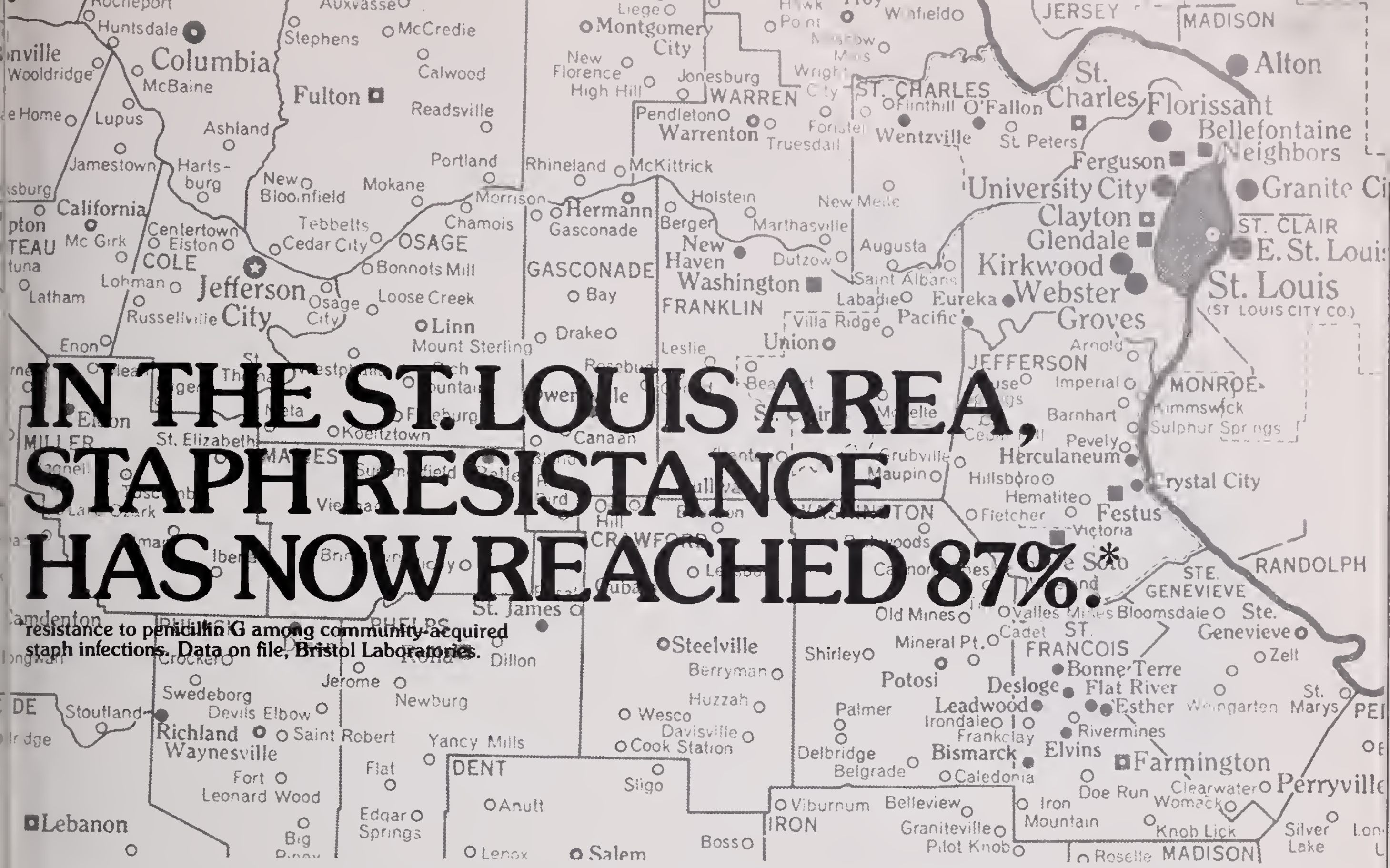
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Ferguson
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# IN THE ST. LOUIS AREA, STAPH RESISTANCE HAS NOW REACHED 87%.*

*resistance to penicillin G among community-acquired staph infections. Data on file, Bristol Laboratories.

## WHEN YOU CAN'T RULE OUT STAPH, CONSIDER

# TEGOPEN®
# (cloxacillin sodium)

## ..."THE PENICILLIN OF TODAY"

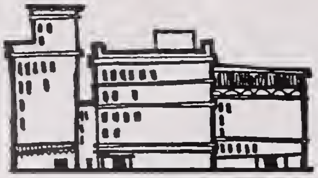
- Effective against nonpenicillinase-producing staphylococci, beta-hemolytic streptococci, and pneumococci.†

†NOTE: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin. The clinical significance of *in vitro* data is unknown.

- 10 times more active against strep than staph.
- Well absorbed from the G.I. tract.‡

‡Maximum absorption occurs when Tegopen is taken on an empty stomach, preferably 1-2 hrs. before meals.

Please see brief summary



# NEWS

# From the Medical Schools

## ST. LOUIS UNIVERSITY

*Max P. Pepper*, M.D., chairman of the Department of Community Medicine, participated in a national conference on disease prevention and health promotion sponsored by the American Medical Association and Sen. Edward M. Kennedy on July 25-27 in Washington, D. C.

**Dr. Pepper**

Dr. Pepper was joined by *Theodore Cooper*, M.D., dean of Cornell University Medical College, and *Gail Warden*, executive vice-president of the American Hospital Association, in a panel presentation on what the medical sector can do in terms of making illness and injury prevention programs work during the 1980s.

Dr. Pepper also was appointed recently to the National Center for Health Service Research Study Section of HEW for a four-year term. The section is responsible for a scientific review of applications for research grants.

*Robert M. Donati*, M.D., professor of internal medicine, has been named to two national committees. He was appointed to the interagency radiation task force on Health Effects on Ionizing Radiation Scientific Study SubGroup of HEW and was named as an AMA representative on the Residency Review Committee for Nuclear Medicine.

Several faculty members at the School of Medicine are recent recipients of research grants. They include: *Karl M. Dus*, Ph.D., associate professor of biochemistry, $41,148 from the National Institute of General Medical Sciences, "Comparative Structural Studies of P-450 Hemeproteins"; *Alvin H. Gold*, Ph.D., associate professor of pharmacology, $41,022 from National Institutes of Health, "Glycogen Synthetase in Developing Liver," and $10,000 from American Diabetes Association, "Liver Glycogen Metabolism in Diabetes"; and *Charles K. Hofling*, M.D., professor of psychiatry, $37,472 from National Institute of Mental Health, "Psychiatry — Basic Training."

Other grant recipients are *Barry L. Marrs*, Ph.D., associate professor of biochemistry, $35,373 from National Institute of General Medical Sciences, "A Biochemical Genetics Approach," and $30,000 from Monsanto Company, "Cellular Molecular Biology Training Program," and *John J. Taylor*, Ph.D., associate professor of anatomy, $14,581 from American Heart Association, "The Latent Pacemaker Cell of the Sino-Atrial Node."

## WASHINGTON UNIVERSITY

Washington University School of Medicine has been selected by the National Institutes of Health to participate in a "Multicenter Investigation of Limitation of Infarct Size."

This collaborative clinical study seeks to test the efficacy of two interventions in limiting acute myocardial infarction. Medical centers at Washington University, Harvard University, the University of Vermont and the University of Texas will be involved in the study. Coronary care units at these schools will recruit, evaluate and treat approximately 1,000 heart attack patients during the next three years.

Patients determined to be eligible for the study will be randomly divided into groups receiving a placebo or one of two drug interventions: propranolol or hyaluronidase.

Besides the clinical investigation unit, which will enroll patients in the study, Washington University has been funded for two core laboratories which will analyze data from all the clinical units. These include the Core Laboratory for Enzyme Analysis and the Core Laboratory for Holter Recording Analysis. Participation in the study at Washington University will be under the direction of *Robert Roberts*, M.D., associate professor of medicine and head of the cardiac care unit, and *Burton Sobel*, M.D., head of the Division of Cardiovascular Disease.

The School of Medicine has received a grant of more than $190,000 for the establishment of a Center for Interdisciplinary Research on Immunologic Diseases.

Under the direction of *Charles W. Parker*, M.D., professor of medicine and of microbiology and immunology, the Center will encourage interdisciplinary research in immunologically-mediated and allergic diseases.

The Washington University Center is one of four being funded. The others will be located at the University of Rochester Medicine Center, N. Y., Georgetown University School of Medicine in Washington, D. C. and the University of California in Los Angeles.

## UNIVERSITY OF MISSOURI-KANSAS CITY

*Dr. Harry Jonas*, professor of medicine, will officially assume his new duties as dean of the School of Medicine on Oct. 1, 1978. Dr. Jonas received his M.D. degree from Washington University in 1952. From 1975 to the present time, he has served as chairman of the Department of OB/GYN at Truman Medical Center and as chairman of the Council on Evaluation at the School of Medicine where he was a professor of medicine and assistant dean.

The new dean has served on many national and local committees, including the Ad Hoc Committee on Utilization of Medical Man Power in Obstetrics and Gynecology, Central Association of OB/GYN in 1970, the National Advisory Committee-Planned Parenthood World Population from 1973 to 1976 and the National Committee on Professional Liability, American College of Obstetricians and Gynecologists. Dr. Jonas succeeds Dr. Richardson K. Noback who has been dean since the beginning of the School. Dr. Noback will continue in his roles as professor of medicine and a senior docent.

Mr. Ewing Kauffman, chairman of the Board of Marion Laboratories presented a check for $30,000 to Dr. E. Grey Dimond on July 19. This Kansas City pharmaceutical company donated these funds to the School for at least three years to help assist medical students with their educational expenses.

Dr. Nobach has announced the addition of the following three faculty members at the School of Medicine.

*Dr. Thomas Terry* joined the faculty on July 1 as an assistant professor of medicine and an internist at Truman Medical Center/East. Dr. Terry comes to the school from the University Hospitals in Cleveland, Ohio where he has just completed a cardiology fellowship. He graduated from the Case Western Reserve Medical School in 1973.

*Dr. Allen Gutovitz* also joined the faculty on July 1 as an assistant professor and docent. Dr. Gutovitz has also recently completed a fellowship in clinical cardiology at Washington University. Prior to that time, he served as a straight medicine resident from 1972 to 1975 at the University of Illinois Medical Center in Chicago. A graduate of the University of Illinois School of Medicine in 1972, Dr. Gutovitz is boarded in internal medicine with a subspecialty of cardiovascular diseases.

The third new faculty member is Dr. Nadine Johnson-Giannopoulos who is an assistant professor and will help Dr. Marjorie Sirridge in her research work in the field of hematology at the school and at Truman Medical Center. A 1963 graduate of the State University of Iowa College of Medicine, Dr. Johnson-Giannopoulos did her postgraduate training at the U. S. Public Health Service Hospital in Baltimore, Md., from 1963 to 1966, serving as an intern and staff physician. From 1970 to 1973, she trained at Menorah Medical Center in Kansas City in such subspecialties as hematology, infectious diseases, oncology, nephrology, and pulmonary diseases. She served as a hematology fellow at the Kansas University Medical Center and was boarded in that subspecialty in 1976.

*Dr. Edward J. Twin* and *Dr. Richardson K. Noback*, both senior docents and professors at the School of Medicine, were honored recently by a resolution from Mayor Charles Wheeler and the City Council of Kansas City. Dr. Twin was cited for his services as the executive director of Kansas City General Hospital and Medical Center and Dr. Noback was recognized for his service as the Dean of the UMKC School of Medicine.

> "The government consists of a gang of men exactly like you and me. They have, taking one with another, no special talent for the business of government; they have only a talent for getting and holding office. Their principal device to that end is to search out groups who pant and pine for something they can't get and to promise to give it to them. Nine times out of ten that promise is worth nothing. The tenth time it is made good by looting A to satisfy B. In other words, government is a broker in pillage, and every election is sort of an advance auction sale of stolen goods."
>
> H. L. Mencken

## UNIVERSITY OF MISSOURI-COLUMBIA

*Dr. Carroll Markivee* has been appointed chairman of the Department of Radiology of the School of Medicine.

Dr. Markivee was named associate professor of radiology with his appointment to the VA Hospital in Columbia in 1975. He has been serving as chief of radiology.

Dr. *Gwilym S. Lodwick*, chairman of the department, continues as research professor of radiology.

*Dr. Jack Curtis*, a heart surgeon with extensive training and experience in adult and pediatric heart surgery at the Mayo Clinic, joined the staff of the Department of Surgery on July 1.

Dr. Curtis's appointment continues the Medical Center's efforts to further strengthen its thoracic and cardiovascular care programs. In addition to this appointment, the University Hospital has renovated and updated equipment in its cardiovascular catheterization laboratory and thoracic, pediatrics and coronary intensive care units.

*Rick A. Gaines* has been named an assistant dean of the School of Medicine, effective October 1. He also will serve as director of administrative affairs of the school and will have an academic appointment in the graduate studies program in health services management.

Mr. Gaines graduated from the University of Missouri-Columbia with degrees in business administration and health services management. He has been employed as an administrator and financial officer for the Department of Family Practice and Community Health at the University of Minnesota School of Medicine.

*Dr. Frederick C. Whittier*, who joined the Department of Internal Medicine at the Medical Center in March, is program chairman for the National Kidney Foundation's eighth annual Clinical Dialysis and Transplant Forum to be held in New Orleans in November.

Dr. Whittier has been named medical director for transplant programs at the University Hospital. In this capacity, he expects to develop a kidney retrieval program in central Missouri by visiting with surgeons and other hospital personnel to encourage their participation.

**HANLEY 14 x 17 Vertical X-Ray and Medical Record Cabinets are used in most hospitals in America.**

**Special new ultrasonic, $399. Physio Therapy—Complete Examining and Reception Room Furniture—Traction Equipment—Hospital Beds—Wheelchairs—Jacuzzi Whirlpools—Oxygen. SOLD & RENTED.**

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**Librax®**
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

**Please consult complete prescribing information, a summary of which follows:**

**Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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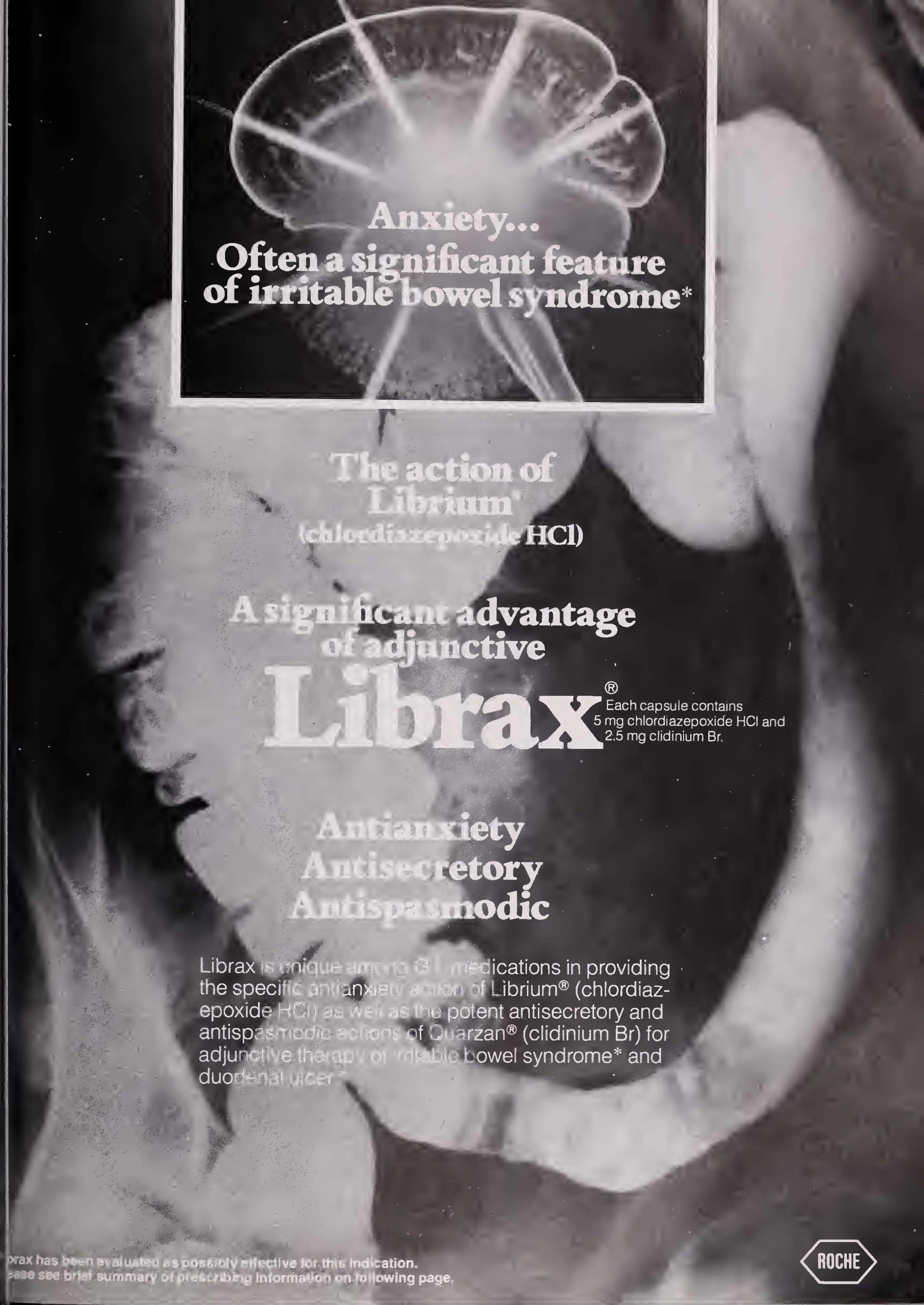

## Anxiety...
## Often a significant feature of irritable bowel syndrome*

## The action of Librium® (chlordiazepoxide HCl)

## A significant advantage of adjunctive

# Librax®

Each capsule contains
5 mg chlordiazepoxide HCl and
2.5 mg clidinium Br.

**Antianxiety**
**Antisecretory**
**Antispasmodic**

Librax is unique among GI medications in providing the specific antianxiety action of Librium® (chlordiazepoxide HCl) as well as the potent antisecretory and antispasmodic actions of Quarzan® (clidinium Br) for adjunctive therapy of irritable bowel syndrome* and duodenal ulcer.*

prax has been evaluated as possibly effective for this indication.
ease see brief summary of prescribing information on following page.

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# Continuing Education Coming Events

> *The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Mercy-Baptist Eye Seminars
St. John's Mercy Medical Center
615 S. New Ballas Rd.
St. Louis 63141
*Contact:* Richard B. Oglesby, M.D.

| | |
|---|---|
| Nov. 12 | Seminar VII — Implant Surgery: Status of the Art |

American Academy of Ophthalmology
15 Second St., N.W.
Rochester, Minn. 55901

| | |
|---|---|
| Oct. 22-26 | Annual Scientific Meeting — Convention Center, Kansas City |

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| Oct. 10 | Seventh Annual Wendell G. Scott Lecture — "Minding the Biomedical Continuum" — Dr. Donald Frederickson, Director National Institutes of Health, Department of HEW |
| Nov. 13 | Program to honor Juan M. Taveras, M.D., Third Director of the Mallinckrodt Institute of Radiology |
| Dec. 11 | City-Wide Radiology Conference: Double Contrast GI Examinations |
| (1979)<br>Jan. 1 | City-Wide Radiology Conference: Ultrasound in Obstetrics and Gynecology |
| Feb. 2 | City-Wide Radiology Conference — Pediatric Radiology |
| March 3 | City-Wide Radiology Conference — Efficacy Studies in Radiology — The Barium Enema |
| April 9 | City-Wide Radiology Conference |
| May 14 | City-Wide Radiology Conference: Radiology of the Temporomandibular Joint |

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

| | |
|---|---|
| Oct. 4 | Seminar: Acute and Chronic Treatment of Common Disabilities |

Greene County Medical Society
223 Professional Bldg., Springfield 65806
(417) 869-2531
*Contact:* James E. Thompson, Jr., Executive Director

| | |
|---|---|
| Sept. 29 | Third Annual Paul Carrick Trust Symposium on Medical and Surgical Treatment of Arthritis |

University of Missouri-Columbia
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

| | |
|---|---|
| Oct. 6-8 | Missouri Ear, Nose and Throat Society Fall Meeting<br>(Lodge of the Four Seasons, Lake Ozark) |
| Dec. 1-3 | National Conference on Group Relations in Health Care<br>(Contact Elizabeth M. Heimburger, M.D., C-6 Medical Center O (314) 882-2511 |
| (1979)<br>April 9-10 | 25th Annual Urology Seminar<br>(Crown Center Hotel, Kansas City) |

St. Luke's Hospital
Wornall Rd. at 44th, Kansas City 64111
(816) 932-2020
*Contact:* Gail Williams, Speech Pathology Department

| | |
|---|---|
| Oct. 9-10 | Seminar: Neurology and Aphasia — Neurological, Linguistical and Behavioral Update |

Society of Gastrointestinal Radiologists
c/o University Hospital
Ann Arbor, Mich. 48109
*Contact:* Walter M. Whitehouse, M.D., President

| | |
|---|---|
| Oct. 12-15 | Postgraduate Course — Diagnostic Imaging of the Gastrointestinal Tract<br>(Tan-Tar-A, Lake of the Ozarks, Mo.) |

**University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society**
**Continuing Medical Education**
**2220 Holmes St., Kansas City 64108**
**(816) 276-1339**
***Contact:* Alta Bingham**

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| **Oct. 26-28** | Fall Clinical Conference-Kansas City Southwest Clinical Society |
| **Dec. 7-9** | The Heart 1978 |
| (1979)<br>**Jan. 21-26** | Mid-Winter Traveling Medical Education Course<br>(Steamboat Springs, Colo.) |
| **Feb. 9-10** | The Long Weekend: Infertility/Endocrinology |
| **Feb. 17-24** | Winter Traveling Medical Education Course<br>(Maui, Hawaii) |
| **March 4-10** | Late-Winter Traveling Medical Education Course<br>(Scottsdale, Ariz.) |
| **April 5-7** | Perspectives in Medicine |
| **April 20-21** | The Long Weekend: Neurology/Renal Diseases |
| **May 3-5** | Seminar: Update in Obstetrics and Gynecology |
| **May 17-18** | Surgical Problems—Old and New |
| **June 7-8** | Symposium: Physical Fitness |

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| **Oct. 5-7** | Clinical Allergy for the Practicing Physician |
| **Nov. 11-13** | Fourth Annual Symposium — Anesthesia and the Geriatric Patient |
| **Nov. 30-<br>Dec. 1** | Emergency Cardiology — Diagnosis and Therapy |
| (1979)<br>**Feb. 16-17** | TB Today |
| **Feb. 22-23** | Use of the Laboratory in Clinical Practice |
| **March 1-2** | An Update in Renal Diseases |
| **April 19-20** | Recent Advances in the Diagnosis and Treatment of Hyperlipidemias |
| **April 23-24** | Developmental Deviations in Children and Adolescents |
| **May 2-4** | Washington University Medical Center Alumni Reunion |

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**(816) 471-3876**
***Contact:* Alta L. Bingham, Executive Director**

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|---|---|
| **Oct. 26-28** | Annual Fall Clinical Conference |

**Kansas City Society of Ophthalmology and Otolaryngology**
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**(816) 531-8432**
***Contact:* Mario J. Guastello, M.D., President, or Roger A. Weis, Executive Director**

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| **Nov. 30-<br>Dec. 1** | Annual Clinical Meeting<br>(Hilton Plaza Inn, Kansas City) |

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| **Sept. 28-29** | Indications for Referral of Ocular Problems |
| **Oct. 12-13** | Recent Advances in Burn Management |
| **Oct. 18-20** | Internal Medicine<br>(Radisson-Muehlebach, Kansas City) |
| **Oct. 24-25** | Medicine and Religion |
| **Nov. 30-<br>Dec. 1** | Surgery<br>(KUMC and Hilton Plaza Inn, Kansas City) |
| (1979)<br>**Feb. 22-23** | Gynecology and Obstetrics in the 80s |
| **March 12-14** | Pediatrics |
| **March 15-16** | Recent Advances in Therapeutics |
| **March 29-30** | Sexuality of the Handicapped |
| **April 2-3** | Ophthalmology: Ophthalmic Plastic Surgery |
| **April 6-8** | Anesthesiology<br>(Crown Center Hotel, Kansas City) |
| **April 23-24** | Noninvasive Cardiac Diagnosis |
| **April 25-26** | Family Practice<br>(Radisson-Muehlebach, Kansas City) |
| **April 27** | Infectious Diseases<br>(Radisson-Muehlebach, Kansas City) |

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|---|---|
| **Nov. 15-17** | Postgraduate Course: Clinical Advances in Pediatrics<br>The Children's Mercy Hospital<br>(Contact Kurt Metzl, M.D., Course Coordinator) |
| **Every Thurs.** | Surgical Grand Rounds<br>(Contact Erich W. Pollach, M.D.) |

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ROBERTO REYNA, M.D., J. Y. JUNG, M.D., R. SALAS, M.D.
*and* CARL H. ALMOND, M.D., *Columbia and Mt. Vernon*

# Postoperative Torsion of a Lobe of the Lung

## *Case Report*

TORSION OF A LOBE of a lung is an uncommon occurrence, but it has been described in association with trauma[1-3] or as a complication of a diaphragmatic hernia.[4] Twisting of an accessory lobe of the lung in the presence of hydrothorax has also been reported at autopsy.[5] However, intraoperative or postoperative torsion of a lobe of the lung has been reported more infrequently.[6-11]

In Chambers and Sweeney's patient,[6] the gangrenous sequestration of the remaining upper lobe of the lung, which followed a left lower lobectomy, is believed to represent a major venous obstruction of the remaining upper lobe. In Schuler's patient,[11] intraoperative torsion of the middle lobe of a patient undergoing a right upper lobectomy was reported. A right middle lobectomy was performed. There also is the patient of Oelert, Dragonjevic, Lusk and Burst[9] who had torsion of a left upper lobe which occurred after a thoracotomy for a Heller myotomy and reoperation for control of intercostal bleeding. Even though Schuler[11] mentioned 31 reported cases of pulmonary gangrene resulting from torsion or operative injury (three of them involving the lower lobes), we have never been able to find any reported cases of postoperative lower lobe torsion in humans. A case of torsion of the diaphragmatic lobe of the lung has been reported in dogs by Alexander, Hoffer and Bolton.[12] The rarity of such an occurrence is reported in this most unusual case.

### CASE REPORT

A 41-year-old white man was admitted to the Missouri State Chest Hospital for the third time on Sept. 15, 1975. The patient had a previous history of histoplasmosis and had been treated three times with amphotericin B: once in 1972 because of involvement of the left lung and again in 1974 because of involvement in the right lung. He was admitted in April, 1975 because of a left upper lobe cavity with persistent positive cultures of Aspergillus species (Fig. 1). It was felt that this patient's problem was a saprophytic involvement of Aspergillus in an old left upper lobe histoplasmosis cavity. In spite of another course of amphotericin B treatment, he persistently grew Aspergillus. He was advised to undergo a left upper lobectomy. Preoperative pulmonary function studies showed mild obstructive disease. Bergan's test dem-

**A case of volvulus and subsequent necrosis of the remaining left lower lobe of the lung after a left upper lobectomy is reported in this article. The authors review the literature on this subject and emphasize that dividing the pulmonary ligament should be avoided whenever possible to prevent this complication. The authors were affiliated with the University of Missouri-Columbia Medical Center and the Missouri State Chest Hospital at the time this paper was written.**

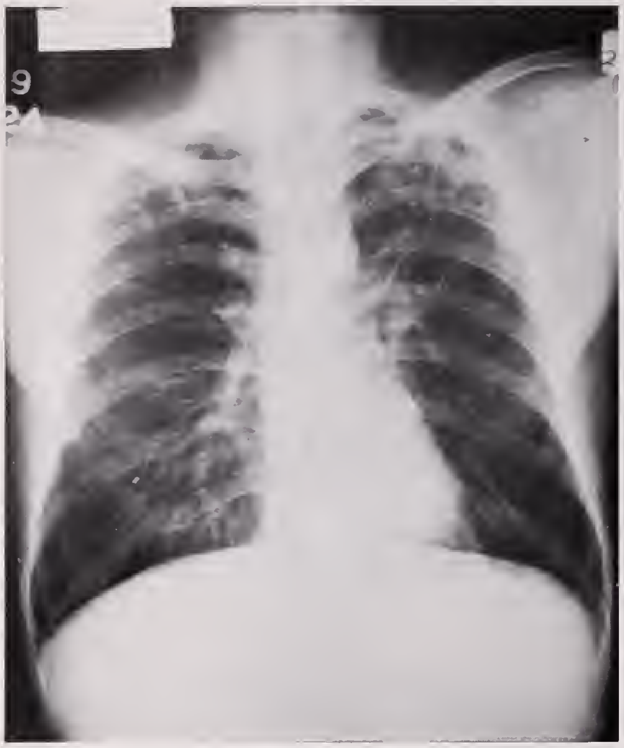

Fig. 1 Preoperative chest x-ray: Cavitary lesions involved the left upper lobe. Right upper lobe shows similar change in lesser degree.

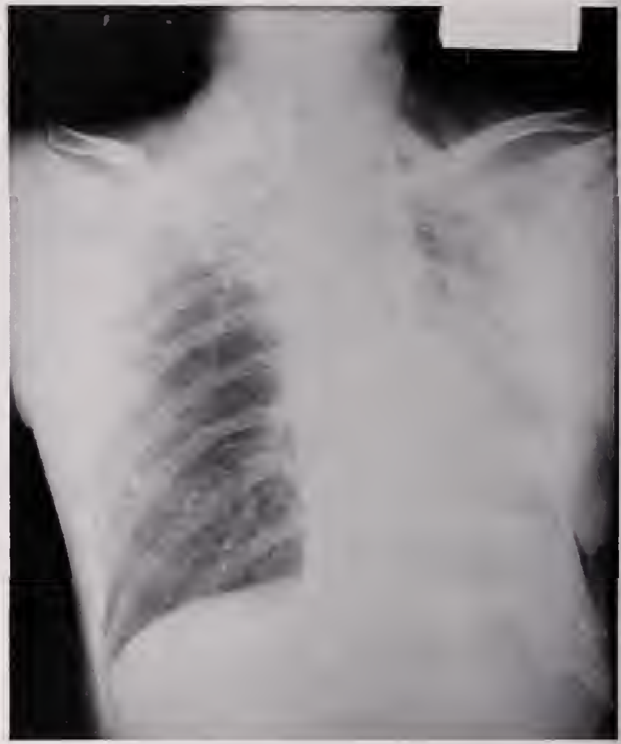

Fig. 2 Immediate postoperative portable chest x-ray. The remaining left lower lobe was expanded.

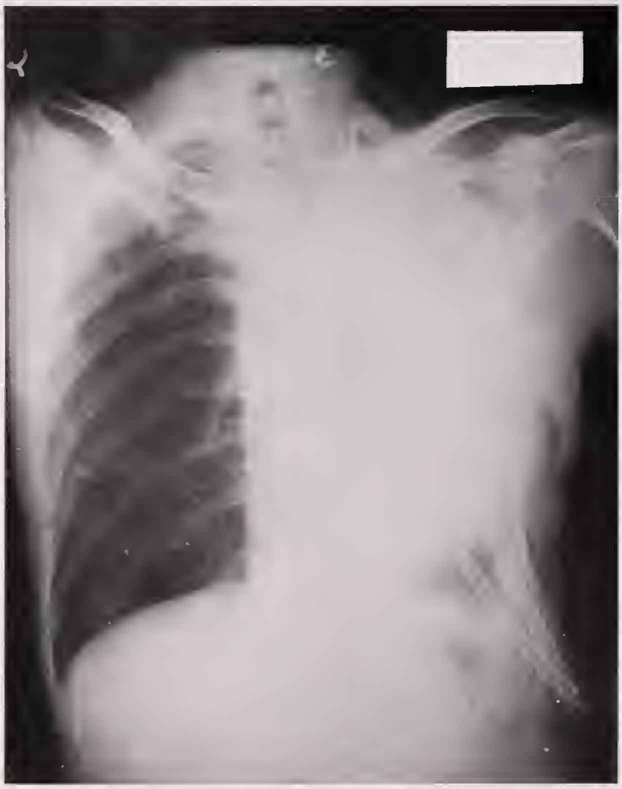

Fig. 3 Complete opacification of the left chest was shown. Bronchoscopy demonstrated complete occlusion of the left bronchus.

onstrated a right lung deficit (right lung 37%, left lung 63%).

On Sept. 26, 1975, he was taken to the operating room and a left upper lobectomy was carried out. There were significant adhesions of the left upper lobe which necessitated sharp dissection of the lobe from the chest wall. At the termination of the resection, the inferior pulmonary ligament was divided completely up to the inferior pulmonary vein to facilitate space filling by the left lower lobe. An x-ray taken the day of operation showed that the left lower lobe was completely expanded and filling the left chest cavity (Fig. 2). In spite of the fact that careful hemostasis was achieved during the operation, after 24 hours there was a total of 725 cc of dark bloody drainage. At that time, the patient had stable vital signs.

On the first postoperative day, the chest x-ray (Fig. 3) showed a complete opacification of the left lower lobe. The patient was encouraged to cough and take deep breaths. He also was stimulated nasotracheally to cough. However, repeated chest x-rays showed no remarkable change. Bronchoscopy showed complete occlusion of the left main bronchus which did not allow the introduction of the rigid bronchoscopy. No masses were found in the lumen. A small #12 catheter was passed with some difficulty through the bronchial lumen. It was our opinion that there was partial bronchial obstruction due to edema of the bronchial mucosa. Following bronchoscopy, the general condition of the patient rapidly deteriorated. The blood pressure decreased to 90/60 and the pulse rate increased to 150

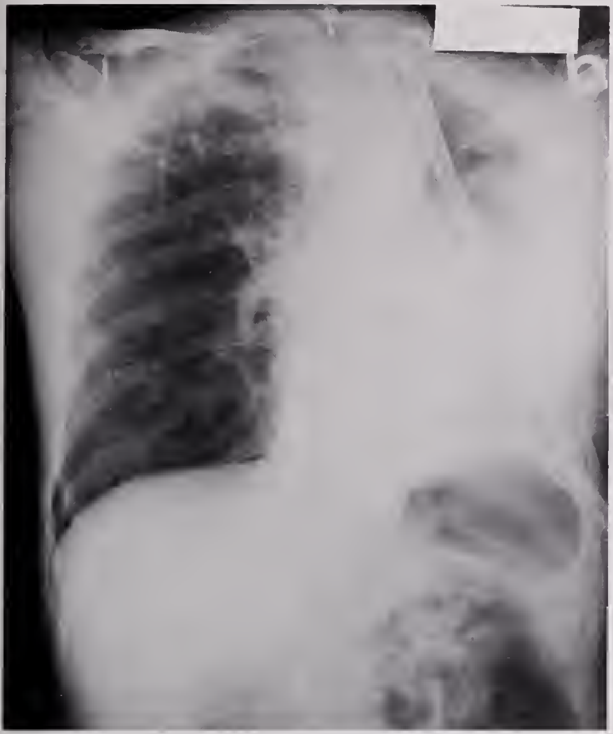

**Fig. 4 Partial aeration of the left lower lobe was shown after relief of 180 degree volvulus. Consolidation of the lower portion was evident.**

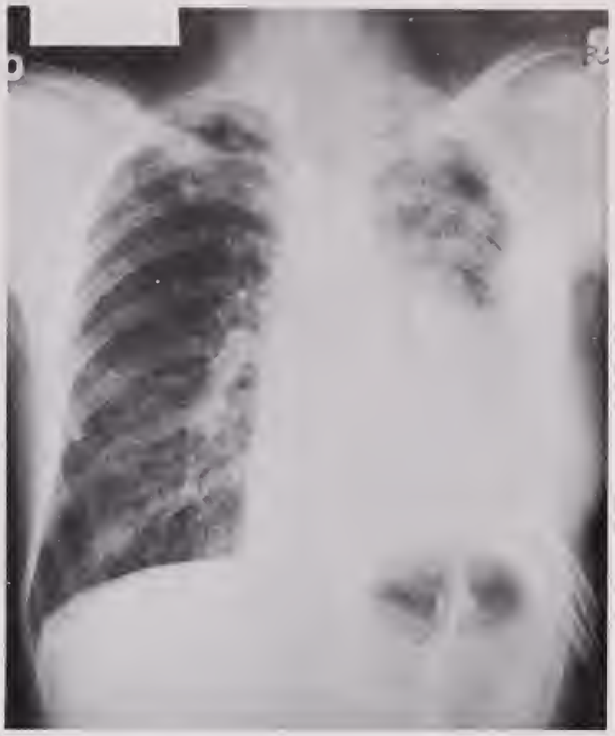

**Fig. 5 Cystic degeneration became evident 1½ weeks following relief of torsion.**

beats per minute. In an attempt to keep the left lower bronchus open, an endotracheal tube was inserted and the patient was placed on the respirator with 10 cm of PEEP (positive end expiratory pressure). However, his condition continued to deteriorate overnight. He developed hyperkalemia of 7.7 mEq per liter and metabolic acidosis with a pH of 7.267 and base deficit of −12.

Because of the worsening of the left chest condition and persistent opacification of the left chest x-ray, the patient was taken to the operating room 48 hours after the previous operation. An occlusion of the left main bronchus was verified again by bronchoscopy. It was not possible to pass a plastic catheter down the bronchus so the patient was reexplored. At thoracotomy, the positive findings were a 180-degree clockwise volvulus of the left lower lobe. The lobe was edematous, congested and dark. There also were about 200 cc of dark bloody fluid in the pleural cavity. After the lobe was untwisted, a large amount of bloody secretions were aspirated through the endotracheal tube by the anesthesiologist. The patient was ventilated energetically and the lung parenchyma became pink and appeared to be viable. This compelled us not to perform a completion pneumonectomy. The lobe was anchored to the pericardial fat with a single stitch of #2 chromic. The postoperative films (Fig. 4) showed fairly good aeration of the left lower lobe and the arterial blood gases were noticeably improved. A regimen of antibiotics was continued.

Two days after the exploration, a follow-up bronchoscopy showed the left lower lobe bronchus to be widely patent. Dark bloody drainage through the chest tubes of 100 cc/day was observed in the subsequent three days. He continued to run a low grade fever. On the fifth postoperative day, an air leak through the chest tube was evident. Chest tube drainage became purulent a week following the operation. In the meantime, his chest x-ray started to show cystic degeneration of the lung parenchyma (Fig. 5). Because of good drainage through the tubes and the fact that he had become afebrile, conservative management was continued.

A month after the exploration for the volvulized left lower lobe, the patient was taken to the operating room for a completion pneumonectomy (Fig. 6). The remainder of the left lower lobe was completely necrotic and had a greenish-yellow color. The lobe was retracted into the hilum, which made intrapericardial ligation of the pulmonary artery necessary. The postoperative period was uneventful and irrigation of the chest cavity with Gentamicin solution was started. However, the drainage became purulent about a week and a half following this third operation, and a Claggett window was performed. The pathology report of the specimen was marked autolysis and, surprisingly, well differentiated squamous cell carcinoma arising from either pleura or pulmonary parenchyma. Following the construction of the Claggett window, the patient has been comfortable. The cavity was packed with a fine mesh gauze wet with diluted acetic acid because of Pseudomonas infection.

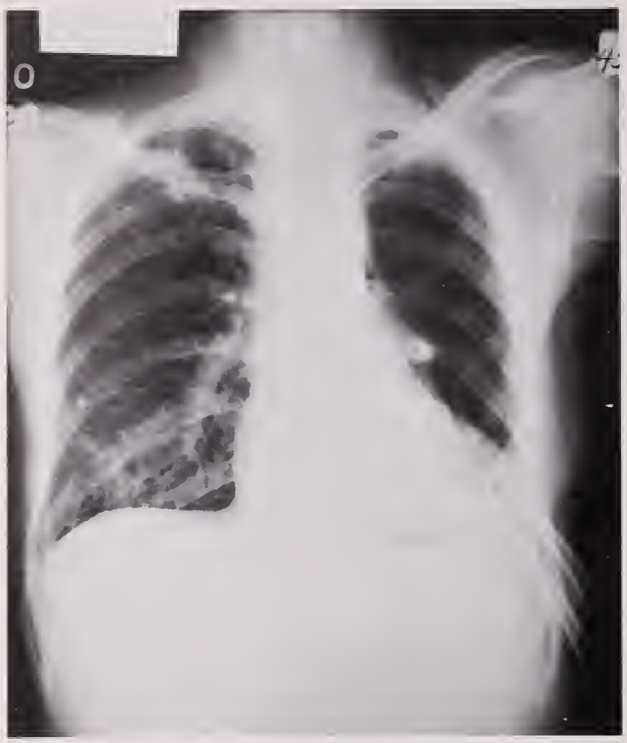

**Fig. 6** Chest x-ray (PA) after completion of a left pneumonectomy.

## DISCUSSION

The twisting of the lower lobe of the lung in humans is an extremely rare condition due to the presence of interlobar tissue in almost all of the patients and, also, to the presence of the inferior pulmonary ligament. After a left upper lobectomy, however, there is no interlobar tissue left. If, as in this case, the inferior pulmonary ligament is completely divided, the second mechanism by which the lower lobe is kept from twisting is lost. The gangrene which occurs secondary to the twisting can be explained by occlusion of the vessels.

An experimental study by Wyatt, Burke and Hanlon[13] shows that it is feasible to divide the left pulmonary vein in dogs without death, but they also found that the mortality was high when the right pulmonary vein was divided. However, the mortality was lowered by the postoperative administration of penicillin. They speculate that this could be due to the quantitative difference in the two sides, the right being larger. They also showed that neither isolated ligation of the pulmonary artery nor isolated ligation of the bronchial arteries produce necrosis of the lung. When both pulmonary and bronchial arteries are ligated, however, necrosis of the lower lobe of the lung occurs. If we add to the vascular insult the possibility of bacterial proliferation in the left lower lobe distal to the strangulated area, we can readily explain why necrosis of the left lower lobe occurs. We think that the presence of squamous cell carcinoma in the remaining lower lobe was purely incidental. No mass was palpated at the time of the first, second, or third operation.

## SUMMARY

We feel that this case demonstrates that torsion of the lower lobe of the lung can occur following upper lobectomy and division of the pulmonary ligament. We speculate that this can occur more often than anticipated as a sequestration of an entire lobe, as reported by Chambers and Sweeney.[6] In order to prevent such complications, we advise not to divide completely the inferior pulmonary ligament or, if this is completely divided, to anchor the lobe to the pleura or adjacent pericardial fat. An early warning that torsion of a remaining lobe has occurred is the presence of a considerable amount of dark bloody drainage through the chest tubes in the postoperative period in a patient in whom careful hemostasis has been achieved. The chest x-ray is particularly helpful if there is early consolidation of the remaining lung. Bronchial obstruction should be confirmed by bronchoscopy.

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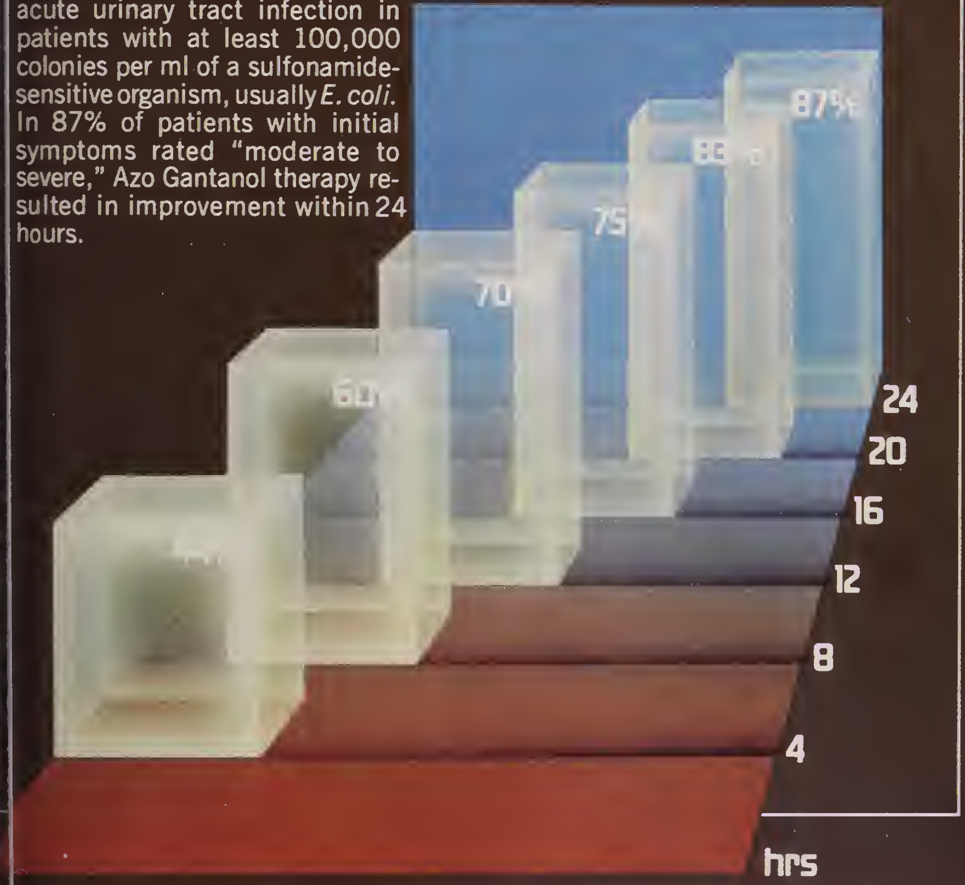

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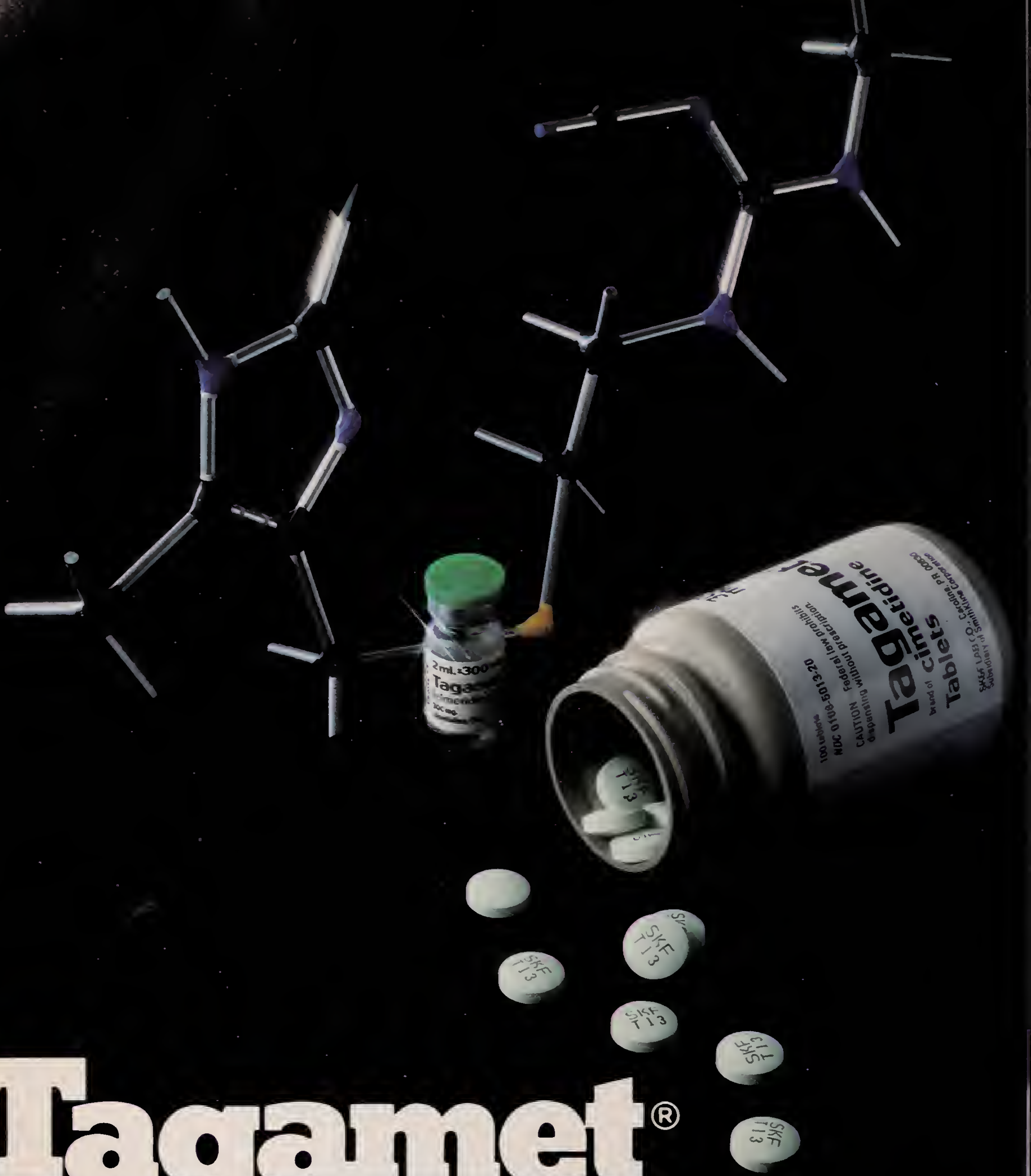
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# Diagnostic Significance of Antinuclear Antibodies

SINCE HARGRAVES originally described the lupus erythematous (LE) cell phenomenon in 1948, there has been a great increase in our knowledge of immunologic events mediating auto-immune diseases states. One of the early advances was the finding that sera from patients with active LE cell tests had antibodies directed against their own cellular nuclei which could be detected by indirect immunofluorescence. These antibodies would cross react with nuclei from different sources, thereby allowing the use of any tissue as a substrate for their identification.

It was soon recognized that other connective tissue diseases demonstrated these antibodies against nuclear constituents. It was also observed that different connective tissue diseases showed certain patterns of nuclear immunofluorescent staining. These patterns are secondary to antibodies with definite specificity for various nuclear components. Further investigation has increased the number of specific antibodies which have been identified, and it is now apparent that certain antibodies occur with increased frequency in various connective tissue disease.[1-4] Thus, it may be possible to arrive at the most likely diagnosis of a specific connective tissue disease by knowing the specific antinuclear antibody present. The purpose of this article is to review these antigen-antibody systems involved in the antinuclear antibody (ANA) reaction and their relationship to the diagnosis of various connective tissue diseases.

## PRIMARY ANA STAINING PATTERNS

Screening for antinuclear antibodies is done by an indirect immunofluorescent method. Whole nuclei from a variety of sources — calf thymus, rat liver or kidney, cancer cells or mouse spleen — are used as a substrate. A patient's serum is incubated on these slides and washed off. If antinuclear antibody is present, it complexes with a nuclear component; if not, the substrate is washed clean. A fluorescein-labeled anti-human globulin is then added. If an antinuclear antibody is complexed with the substrate, it will bind to it and be seen with fluorescence microscopy.

If nuclear fluorescence is present, the stain will be one of four primary patterns: rim (peripheral), diffuse (homogeneous), nucleolar or speckled. The specificity is obtained by the reaction of the antibody against specific macromolecules of the cell nucleus. These nuclear macromolecules are distributed in different regions of the nucleus, giving different staining patterns. Once the pattern of immunofluorescence is determined, specific antibodies can be measured by a variety of radioimmune or immunodiffusion assays.

The rim pattern is an indirect measurement of antibody directed against native deoxyribonucleic acid (DNA). In the resting or nondividing cell, most DNA is present as repressed chromatin located at the peripheral portions of the nucleus. Thus, antibody directed against this DNA will demonstrate immunofluorescent staining of the peripheral portion of the nucleus. It is this complex between the antibody and the antigen in the cell nucleus that is now known to cause tissue injury by the activation of the complement cascade system.

The direct measurement of these antibodies directed against the native DNA by DNA-binding assays appears to be beneficial. An abnormal increase in bindings occurs most frequently in systemic lupus erythematosus (SLE).[3, 5, 6] Anti-DNA binding antibodies are of special importance in the diagnosis of connective tissue diseases because titers greater than 50% are seen almost exclusively in SLE. Appearance of the antibody closely relates to the severity of the clinical disease, especially renal injury. Therefore, the presence of these antibodies in the sera of patients with SLE is an indication for therapeutic attempts to suppress their formation.

Abnormal DNA binding, or the amount of antibody directed against native DNA, correlates well with ANA staining patterns. DNA-binding titers greater than 50% correlate most closely with the rim pattern. Homogeneous patterns can also be associated with elevated DNA binding titers. Speckled ANA patterns or negative ANA tests rarely have DNA binding greater than 40%. Conversely, rim patterns of ANA staining all correlate with DNA binding greater than 40%, while homogeneous patterns may not show DNA binding.[6] Since DNA binding correlates well with active renal disease, the patient with SLE and rim pattern of immunofluorescent staining will have a higher incidence of renal disease.

The diffuse or homogeneous pattern can probably be called the classic antinuclear antibody because the antibody responsible for it is also primarily responsible for the LE cell phenomenon. The antibody is always present in serum of patients with untreated SLE when measured by serologic tests even though the LE cell test may be negative in 25% of patients with SLE. Therefore, a negative LE cell test does not rule out SLE.[7] The antibody reacts to a soluble nucleoprotein which is a DNA-histone complex designated as sNP. sNP antibodies can also be quantitated by binding assays. Abnormal increases in sNP binding occurs most frequently in SLE. Most other connective tissue diseases show no abnormal sNP binding,[3, 8] thus making the test highly specific.[9] Due to the fact that anti-sNP is commonly present in SLE, the associated diffuse ANA pattern can obscure coexistent rim and speckled ANA patterns.

Probably the least is known about the nucleolar staining pattern. It has been demonstrated that although Sm and RNP (see below) may be present in the nucleolar faction, there is a specific antinucleolar antibody. The immunofluorescent reaction probably involves multiple antibodies. The antigen has been characterized as a 4-6S RNA, but its source is yet to be determined. In 27 patients with nucleolar staining pattern, Tan *et al* found all had either scleroderma, Raynaud's or Sjogren's syndrome. None of Tan's cases had the diagnosis of SLE.[10] Ritchie reported that of 18 patients with nucleolar staining, 12 had systemic sclerosis. Conversely, of his 24 patients with systemic sclerosis, 13 (54%) had positive antinucleolar staining. Antinucleolar staining patterns were also found in 26% of his patients with SLE.[11] Beck found a 20% incidence of antinucleolar antibodies in his 32 patients with systemic sclerosis.[12, 13] Thus, it appears that although this ANA staining pattern can occur in SLE, it has the greatest specificity for systemic sclerosis.

The speckled pattern of staining can be secondary to well described antigen-antibody systems as well as several new antibody systems currently being described. In 1972, Northway and Tan described Sm and RNP, the two main antigens involved.[14] They are both acidic nuclear proteins that are soluable in saline and may be leached out of the cell nucleus during staining procedures unless conditions are properly controlled. Therefore, serum with high titers of speckled ANA patterns may be reported as negative due to loss of antigen substrate during testing. The presence of anti-Sm or anti-RNP or both appears specific for the speckled pattern of staining and is not associated with diffuse, rim or nucleolar staining patterns.

Sm antibodies occur exclusively in SLE. In contrast, antinuclear RNP antibodies are widely distributed.[3, 4, 15] Patients with SLE, however, may have low titers of RNP antibodies. Interestingly, patients with systemic sclerosis can also demonstrate low titer of RNP antibodies. Many SLE sera contain more than one antibody system. It is also of interest that those patients with SLE nephritis and high titers of anti-RNP respond better to treatment, suggesting a protective nature of RNP antibody.[16] This protective nature of anti-RNP was not confirmed by Parker; his patients with SLE and RNP antibodies, however, also had antibodies directed against other cellular components.[15]

RNP antibodies are also important in the diagnosis of Mixed Connective Tissue Disease (MCTD). MCTD is a well described syndrome consisting of a variety of clinical symptoms suggestive of SLE, polymyositis and scleroderma.[17] Serologically, a speckled staining pattern of immunofluorescence is seen and RNP antibodies are present in 100% of the cases. There is a striking elevation of the antibody titer: usually greater than 1/1000. The importance of confirming this diagnosis is twofold: (1) the rare incidence of reported nephritis (less than 5%) and (2) the excellent response to small doses of corticosteroids. In contrast to SLE, titers of RNP antibody do not decrease with remission of clinical disease.[1, 4] There has been one case of MCTD reported to have had Sm antigen, but, retrospectively, the patient most likely had SLE.

Using the standard ANA techniques, it is difficult to differentiate between the speckled patterns resulting from RNP or Sm antibody or the speckled patterns of scleroderma which contain neither Sm nor RNP. Treatment of the tissue sections with RNAse will eliminate the speckling due to RNP antibody. Northway and Tan, by employing a special lymphocytic cell line (Wil$_2$), were also able to distinguish the speckled patterns of Sm and RNP because of the cellular location of staining during the different phases of cell growth.[2]

## Experimental Antigen-antibody Systems

With the new techniques of radioimmune and immunodiffusion assays, it has been possible to identify several new antigen-antibody systems which clinically correlate with connective tissue disease. These antigen-antibody complexes primarily give speckled patterns of fluorescent staining. In the past, there have been many reports of positive ANA in systemic sclerosis (PSS), mostly speckled patterns in low titers. Although different patterns of speckling have been described, no conclusive specificity has been found.[14] Tan *et al* have now isolated an antibody which is immunologically distinct from RNP, DNA, sNP and Sm antibodies. This antibody was present in 11 of 56 patients (20%) with PSS.[19] Thus, the profile of PSS is characterized by three features: low titer of RNP antibody (21%), high titer antinucleolar antibody and a new unique "marker" antibody tentatively called $Scl_1$.

Wolfe *et al* have described a new antibody-antigen system found in polymyositis patients whose sera give a speckled pattern ANA.[20] Provisionally named PM-1, it was found in 17 of 28 patients (61%) with polymyositis. It was not found in 460 patients' sera with other diseases. It is immunologically and biochemically distinct from Sm, RNP and DNA. Conclusions could not be made as to whether PM-1 positive and negative patients represent different clinical subsets or merely reflect the insensitivity of the method.

New autoantibodies in Sjogren's syndrome are of interest because of their diversity. Two have been identified as SS-A and SS-B. They appear to be present in sera of patients with Sjogren's syndrome without associated rheumatoid arthritis.[21] SS-A appears to be more specific, occurring in 70% of patients' sera with Sjogren's. It requires a special cell line ($Wil_2$) for identification. The SS-B system can be found by using regular tissue substrate and occurs in 40% of patients with Sjogren's. The ANA pattern is speckled for SS-B and homogenous for SS-A. SS-A and SS-B antibodies have not been found in 100 sera from patients without Sjogren's syndrome.

The previously unknown specificity of the positive ANA in rheumatoid arthritis may be secondary to an antibody found in patients with RA and the sicca complex. Called RAP, rheumatoid precipitin factor, it was found to be present in 67% of patients with sero-positive RA and 62% of patients with Sjogren's syndrome associated with RA. It was present, however, in lower frequency in many other connective tissue diseases including sero-negative RA.[22] The antigen requires the specific cancer cell line $Wil_2$ and is not known to be truly an antinuclear antibody. Anti DNA (4%-16%) and anti-RNP (10%) have also been reported in rheumatoid arthritis.

**The immunofluorescent antinuclear test is an indirect measurement of antibodies directed against various nuclear components. With the increase in the number of identified autoantibodies and our knowledge of their specificity for certain connective tissue diseases, more accurate diagnosis can be made through use of the ANA, its titer and the specific antibodies causing the pattern of immunofluorescence. Dr. Wood received training in the Department of Dialysis and Transplantation, St. Luke's Hospital. He is now Chief of Nephrology, USAF Medical Center, Keesler AFB, Miss. This paper was supported by a grant from the Helwig Fellowship Fund through the St. Luke's Foundation for Medical Education and Research.**

It must be noted that pure patterns of nuclear staining may not always be observed in the same tissue section. Tan, using sera from 18 patients with SLE, demonstrated mixed patterns of rim, homogenous and speckled staining patterns on single tissue sections. Furthermore, he observed that serial dilution of the sera led to transition from one pattern to another, presumably due to the presence of different antibody types and interference between them.[23] The finding of more than one antigen-antibody system in the same patient, therefore, greatly increases the likelihood of the diagnosis of SLE.

## Drug Induced Autoimmune Disease

Positive ANA can be associated with the use of hydralazine, procainamide, isoniazid, sulfonamides, dilantin, chlorpromazine, trimethadione, aldomet and nitrofurantoin, all of which have been implicated in autoimmune disease. Although many of the clinical features are similar to systemic lupus, there are some major differences. Clinically, there is an insignificant incidence of

TABLE I

The patterns of ANA immunofluorescence correlate well with the diagnosis of specific connective tissue. This correlation is secondary to specific antibodies which occur with greatest frequency in certain connective tissue diseases.

| PATTERN OF IMMUNO-FLUORESCENT STAINING (ANA) | ANTIGEN - ANTIBODY SYSTEM | SUSPECTED CLINICAL DIAGNOSIS |
|---|---|---|
| RIM | DNA (? nucleoprotein) | Systemic Lupus Erythematosus<br>? Rheumatoid Arthritis |
| DIFFUSE | sNP | Systemic Lupus Erythematosus<br>? Elderly population |
| | Nucleoprotein | Drug-induced Lupus |
| | SS-A (experimental) | Sjogren's Syndrome |
| NUCLEOLAR | 4 - 6 S RNA | Systemic Sclerosis<br>Sjogren's Syndrome<br>? Systemic Lupus Erythematosus |
| SPECKLED | Sm | Systemic Lupus Erythematosus |
| | RNP (high titer) | Mixed Connective Tissue Disease |
| | (low titer) | Systemic Lupus Erythematosus<br>Systemic Sclerosis<br>? Rheumatoid Arthritis |
| | Scl1 (experimental) | Systemic Sclerosis |
| | PM-1 (experimental) | Polymyositis |
| | SS-B (experimental) | Sjogren's Syndrome |
| | ?RAP (experimental) | Rheumatoid Arthritis |

immune-complex renal disease in drug-induced states. Serologically, drug-induced positive ANA have specificity primarily for sNP antibodies (homogenous pattern). There is a conspicuous absence of Sm and RNP antibodies. There is usually a decrease in antibody titer soon after discontinuation of the drug with the development of negative serologies a few months after withdrawal. Interestingly, the sNP antibodies in drug-induced lupus are antigenically distinct from the sNP of SLE.[24] It has also been observed in vitro that hydralazine forms a physical complex with DNA-histone. Patients who are slow acetylators of the drug are more prone to develop disease.[25] The current status of birth control pills in inducing ANA and, consequently, clinical disease is still in doubt. There are reports of women known to have had negative ANA who converted to positive while on the pill.[26] There are, however, similar studies that do not support these observations.[27, 28]

## Summary

The ANA, as measured by indirect immunofluorescence, is an important adjuvant in the diagnosis of connective tissue disease. Table 1 lists the four primary ANA patterns, the currently recognized antibody-antigen systems and their relationship to the diagnosis of specific connective tissue diseases. False positives do occur, however, and positive ANA have been reported in a variety of lung diseases,[29, 30] various liver diseases,[31, 32] chronic interstitial nephritis,[33] some infectious diseases and neoplasia.[34] The titer is usually low and its clinical significance has not been appreciated at this time. These ANA, however, do not appear to be related to active immunologic disease. Reports also indicate that the "normal population," especially older women, may have low titers of ANA. High titers of ANA, however, should always suggest clinical disease.[35-37]

Therefore, the ANA must always be evaluated in conjunction with the clinical picture and patient's course. Also, valuable information can be gained by looking at both the pattern and the titer of ANA. These patterns, although not diagnostic, should statistically suggest specific connective tissue diseases. When combined with specific antibodies measured by more subtle methods, such as radioimmune or immunodiffusion assays, increased specificity in diagnosis should be obtained.

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JAMIL A. FAYEZ, M.D., HARRY S. JONAS, M.D.
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# Correction of Congenital Absence of the Vagina

## *Case Report*

CONGENITAL ABSENCE OF THE VAGINA is usually not detected until it manifests as primary amenorrhea in an otherwise apparently normal female adolescent. The uterus and fallopian tubes are usually absent. Occasionally, a small, vestigial unfused uterus without an endometrial cavity on either side presents an embryonic failure of fusion of caudal paired müllerian ducts. The ovaries are usually present and normal.

The incidence is about one in 4,000 to 5,000 women.[1] Since this congenital anomaly was described by Columbus in 1572,[2] numerous ingenious techniques have been devised to correct it. This report was initiated after one patient with the combination of congenital absence of the vagina as well as a solitary pelvic kidney was successfully treated by Frank's[3] nonoperative procedure.

A case of congenital absence of the vagina associated with a solitary pelvic kidney is reported. The different types of procedures for constructing a vagina are discussed, along with the advantages of the nonoperative method over operative vaginoplasty in terms of simplicity and safety. Close patient cooperation and follow-up are essential to the effectiveness of the nonoperative method. The authors are from the Department of Obstetrics and Gynecology at Truman Medical Center, University of Missouri-Kansas City School of Medicine where Dr. Fayez is Chief, Section of Reproductive Endocrinology; Dr. Jonas is Chairman of the Department and Dr. Johnson is Chief Resident.

### CASE REPORT

This 18-year-old, white woman noted the onset of breast and pubic hair development at about age 13 and became concerned about the absence of menstruation at age 16. There was no history of cyclic abdominal pain. Her family history was unremarkable with the exception of an aunt whose menarche started late in her teens. For two years, the patient had visited two physicians who advised her that the maturation index was normal and, therefore, she should have her periods soon.

The patient was a well-developed, attractive girl of average stature. She weighed 109 lb and her height was 5 ft 5½ in. The breasts were well-shaped, firm and of average size. Pubic and axillary hair was of normal distribution. The clitoris, labia minora and majora were normal. The urethral orifice was dilated, probably due to the frequent examinations resulting from being mistaken for the vagina. There was only a slight dimple occupying the region of the normal hymenal orifice to the vagina. By rectal examination no uterus was palpable but there was a left pelvic mass 7 cm x 8 cm. Cystoscopy showed one ureteral opening in the left side of the bladder.

A buccal smear was positive for Barr bodies and the karyotype was 46,XX. Results of a skeletal survey was unremarkable. An intravenous pyelogram (IVP) demonstrated a single pelvic kidney with short hypoplastic ureter (Fig. 1).

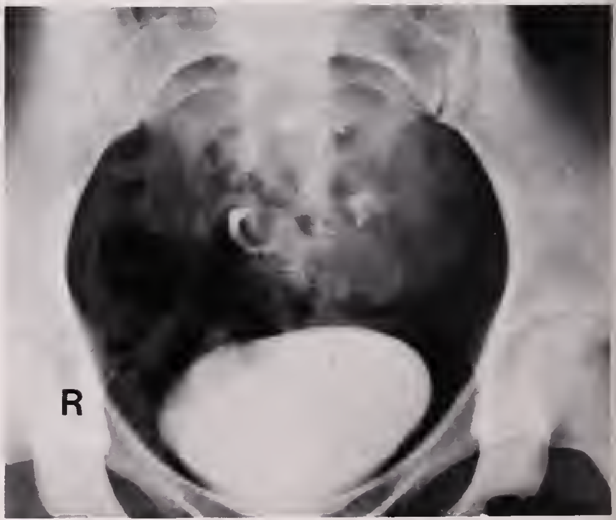

Fig. 1 Intravenous pyelography showing a solitary pelvic kidney.

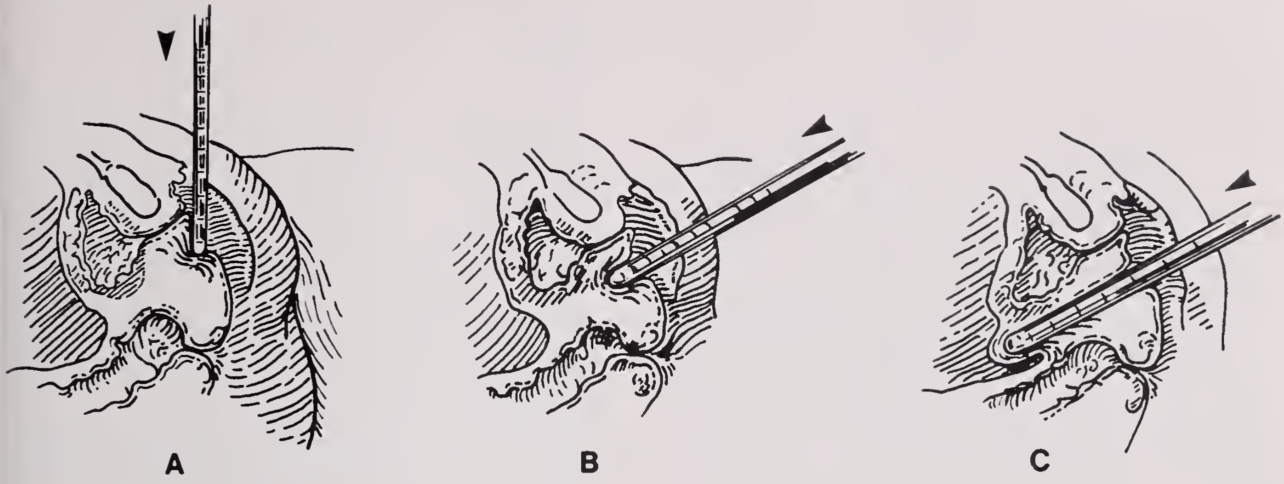

**Fig. 2** Frank nonoperative technique of creating an artificial vagina. Dilators of increasing caliber are used to create an artificial channel by means of pressure. (A) The smallest dilator is directed posteriorly in order to avoid the urethra. (B & C) After a short channel has been created, the dilators are then directed cephalad with longer and larger dilators.

Seventeen ketosteroids, 17 OH corticosteroids and pregnanetriol were normal. The patient was asked to take her basal body temperature for two months, and both were biphasic. Serum FSH and LH were taken at the end of the second cycle observed by the basal body temperature chart and were 1.8 mIu/ml and 3.7 mIu/ml respectively. Two weeks later, FSH and LH levels were 12.6 and 25.9 mIu/ml demonstrating that the patient has been ovulating.

The diagnosis was vaginal agenesis. This was thoroughly discussed with the patient, her parents and her fiancé and the various methods of treatment were fully explained. All agreed to a plan which appears to be a rational one for such cases. First, it was decided to try the Frank dilatation method, allowing a period of three to four months for its trial. If it appeared not to be suitable, one of the operative procedures was to be used in order to secure a vagina capable of coitus.

We carried out the plan outlined by Frank with utmost care (Fig. 2). While the progress from week to week appeared to be slow, in retrospect, the development of the canal was about as outlined by Frank. After four months of treatment, a canal 7.5 cm in depth and two fingers in breadth at the introitus was secured (Fig. 3). Eight months later, the patient stated that coitus had been satisfactory to both parties. The entire armamentarium consists of three test tubes about 5/16 inch, 5/8 inch and 3/4 inch in diameter. The larger two were six inches in length.

## Discussion

Congenital absence of the vagina ranked second only to gonadal dysgenesis as a cause of primary amenorrhea. Like our patient, most teenage girls with vaginal agenesis complain of primary amenorrhea. Those seen later will also complain of inability to have satisfactory coitus.

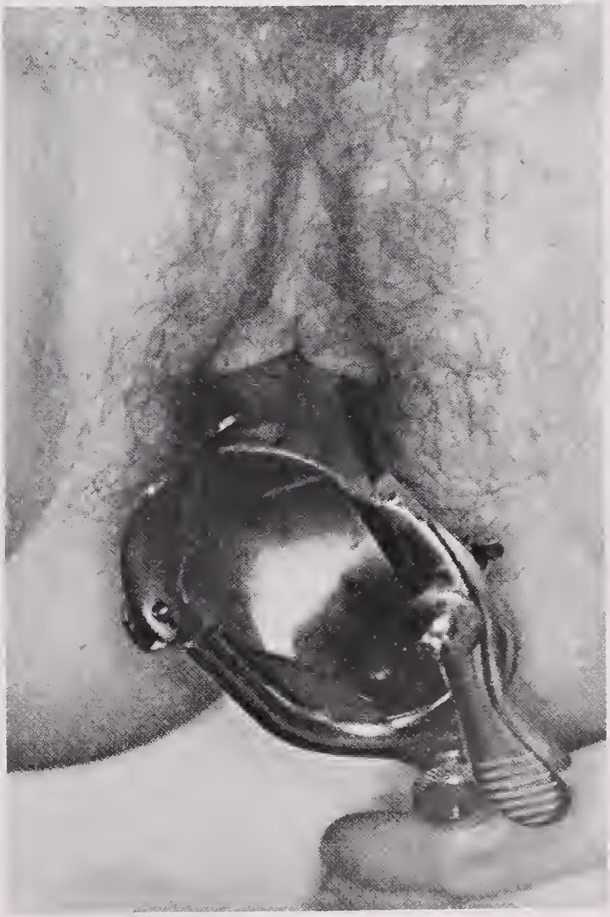

Fig. 3 A fully inserted speculum into the newly made vagina after four months of self-treatment.

The diagnosis of vaginal agenesis is simple since it can be made by pelvic examination. The usual findings are those of a normal vulva with normal labia majora, labia minora, urethra and clitoris. As in our patient, most cases reveal a shallow dimple measuring about 1 cm. This dimple represents the attempt of the urogenital sinus to form the lower vagina. Agenesis of the upper two thirds of the vagina results from failure of normal müllerian duct development.

Occasionally the urethral orifice is mistaken for a hymenal orifice, an example seen in our case.

Like our patient, almost all patients with vaginal agenesis have a normal 46,XX karyotype with their ovarian function being normal, both in regard to ovulation and endocrine function.

The association between congenital absence of the vagina and developmental abnormalities of the urogenital system was recognized very early.[4] Forty-seven percent of these patients had either agenesis of one kidney or ectopia of one or both kidneys. The most serious of the renal abnormalities, which is compatible with life, is the solitary pelvic kidney which is found in about 7% of these patients.[5] A skeletal survey was done because more than 12% of these patients have skeletal anomalies, mostly involving the spine.

An intravenous pyelography is indicated for all patients with vaginal agenesis, particularly if pelvic surgery is contemplated. Exploratory laparotomy or laparoscopy is not necessary in a genetically normal woman if there is nothing to suggest a functioning uterus. As a matter of fact, we believe that laparoscopy is contraindicated in patients with solitary pelvic kidney due to the proximity of the kidney to the operative field.

A multitude of ingenious operations have been developed to create an artificial vagina when it is congenitally absent. In brief, the more common methods are (a) the Wharton[6] method wherein the neovagina is dissected surgically between the bladder and rectum and a mold is worn by the patient until the canal becomes epithelialized; (b) the McIndoe[7] procedure which involves the surgical dissection of the neovagina and placement of a skin graft on a mold inserted into the new canal for immediate epitheliazation; (c) the Pratt[8] technic in which the surgically dissected canal is lined with a segment of colon; (d) the Williams[9] vulvovaginoplasty method; and (e) the Frank nonoperative technique in which the vagina is created by pressure from dilators.

We carefully counseled our patient and decided to start with the nonoperative technique. Dilatation of the introital dimple is easy, is without any reported morbidity or mortality and is as effective as any operative technique designed so far. If, for some reason, which is usually lack of patient's cooperation, this nonoperative technique fails, nothing but time has been lost and an operative vaginoplasty can be performed at a later date. To be successful, this technique requires careful counseling and close follow-up of the patient.

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G. David Dixon, M.D. of St. Luke's Hospital in Kansas City has been elected president of the Greater Kansas City Radiological Society for 1978-1979. Raymond Hartwig, M.D. of Trinity Lutheran Hospital was elected treasurer and Norman Martin, M.D. of the University of Kansas Medical Center was elected treasurer-elect.

The Society's first fall educational program will present a seminar on "Efficiency, Productivity and Equipment." Category 1 credit will be granted for each morning and evening session. The complete 1978-1979 educational program will be published in the *Continuing Education Coming Events* department in the next issue of MISSOURI MEDICINE.

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*and* **DINAH PEARSON,** ***Columbia***

# Breast Cancer: The Center and the Satellites

A Breast Cancer Detection Demonstration Project jointly funded by the National Cancer Institute and the American Cancer Society became operational at the Cancer Research Center in Columbia, Mo. on June 1, 1974. Of 27 such demonstration projects which are operational in the United States, the Columbia program is considered the only non-urban demonstration program. The project represents exemplary cooperative efforts between the American Cancer Society, the National Cancer Institute, the Cancer Research Center, Ellis Fischel State Cancer Hospital, the University of Missouri Medical Center, the Missouri Division, Inc., American Cancer Society and its large core of volunteers and the Missouri Order of the Eastern Star. Public and professional acceptance of the program has been exceptional as witnessed by participants from 105 of Missouri's 115 counties and the superb cooperation from more than 800 physicians of Missouri. Apart from the actual detection demonstration effort, several important programs have been made possible by the presence of the demonstration project. These satellite programs are notable and deserve to be mentioned.

## Retrospective Case Control Study of Reserpine and Breast Cancer

In September, 1974, three cooperative national studies reported a possible association between reserpine and breast cancer. The reported data were enough to merit further studies, but too inconclusive to be the basis for recommending that drugs containing reserpine be withdrawn.

In an attempt to resolve this problem, the National Cancer Institute designed a study to be carried out through the national Breast Cancer Detection Demonstration Projects. These projects, through the Central Project Data Center, could quickly identify and verify breast cancer patients, characterize these patients with respect to matching variables such as age, race, residence, medical care and screening center and find comparable controls for the same characteristics. Women with identified breast cancer, a match control group of an equal number of women with benign disease and another group of women without any positive findings received an explanatory letter requesting their participation and informed consent. They also were asked to complete a questionnaire which requested information about specific illness and drug therapy and the names and addresses of any physicians prescribing drugs taken for at least one year for a specified illness. The physicians of those patients who took one of the drugs under study were then contacted for further information. The study was conducted in such a way that the participants could not determine which drugs were being studied.

This combined effort to answer the urgent question of possible association between reserpine and breast cancer was well received by participants in the Demonstration Program at the Cancer Research Center and the work was completed within one year. In the fall of 1977, Dr. Roger R. Williams, University of Utah, published the clinical findings as a result of this cooperative effort relating to reserpine and breast cancer.

## Breast Cancer Detection Methods Teaching Grant

A Cancer Control Grant for Teaching the Techniques of Early Breast Cancer Detection was awarded to the Cancer Research Center by the National Cancer Institute for a two-year period and has just completed its second and final year. The teaching was conducted in conjunction with the Center's Breast Cancer Detection Demonstration Project. Based on the growth and utilization of both mammography and thermography, the demand for such training has become acute throughout the United States. The course (a minimum of one week) was open to paramedical and medical personnel in Missouri, including x-ray technologists, nurses and physicians. The scheduled program was organized on an individual basis dependent on the goals and previous education or speciality of the trainee.

During the operation of the program, the director took extreme care in structuring the appropriate educational experience for each individual student. For example, for the interested x-ray technologist, the techniques and physics of mammog-

**The Breast Cancer Detection Demonstration Project in Columbia, which is jointly funded by the National Cancer Institute and American Cancer Society has attracted other notable research and demonstration programs. Retrospective studies, educational programs, biological markers development and mathematical decision models are now a part of the past, present and future "satellite efforts" which will be made possible by the existence of the extensive breast cancer detection program effort in Missouri.**

**Dr. Farrell is Associate Scientist in Radiology, Cancer Research Center and Associate Professor, Department of Radiology, University of Missouri School of Medicine. Mr. Thomas is Administrative Director, Missouri State Cancer Control Program. Ms. Pearson is Project Coordinator for the Breast Cancer Detection Demonstration Project.**

raphy and thermography were stressed. For the radiologist physician, interpretation of the two mammographic and thermographic images and review of proved cases were two of the educational goals. All modalities in the teaching files have excellent examples of normal and abnormal examinations. An up-to-date and extensive reprint file dealing with various aspects of breast cancer and multiple audiovisual aids were also available. The central teaching file, which was given to the teaching project by the American College of Radiology, represents vast experience in all modalities.

The educational experience of the student was supplemented by easy access to the Ellis Fischel-Cancer Research Center library which has holdings of 200 journals, 6,500 books and an estimated 200 reprints. Dr. Rodes, Project Director; Dr. Blackwell, radiologist; Dr. Farrell, radiologist; and the Project staff gave daily critiques, lectures and image-interpretation sessions for the students. Pre- and post-test examinations were administered and each student had the opportunity to critique his or her educational experience.

Attendance at and acceptance of this particular teaching program exceeded staff expectations. In the first year of the grant, there were 19 participants in the teaching program. During the second year, there were 40 additional participants.

In November, 1976, the resident physicians from the Department of Radiology, University of Missouri Medical Center began a "month-in-practice" program. Following the one-week extensive training program, the resident returned to the Breast Cancer Detection Demonstration Project at the Cancer Research Center to interpret xerograms and thermographic examinations under direction of the physicians in charge of the specific section. Also, the resident participated in the weekly conference held to discuss abnormal examinations. The exposure to hundreds of examinations in each modality refined the physician's interpretation accuracy in breast disease.

The Missouri Order of the Eastern Star, an active supporter of the Cancer Research Center's Breast Cancer Detection Demonstration Project, provided furniture and equipment for the primary teaching office. This past year, this organization contributed teaching materials. All of these contributions have assisted in the development of a quality program.

One indication of its quality is the fact that during the course of the first year, the program was approved for 38 hours of Continuing Medical Education Credit in Category I by the American College of Radiology and received similar approval from the American Medical Association. The American College of Radiology Section on Continuing Education for Registered Technologists has awarded similar credit.

### SERUM COLLECTION PROGRAM

The Cancer Research Center recently competed successfully for a support resource contract to provide the national Breast Cancer Task Force Biological Markers project with sera which will be banked at a central medical facility for future research use. Since the Breast Cancer Detection Demonstration Project represents a unique, probably not-to-be-duplicated resource of screenees and well characterized clinical materials, the Cancer Research Center's participation in this program is significant.

For years, practicing physicians have searched for indicators which would help them in selecting therapeutic approaches to individual patients and to help in detecting cancer at an early stage of development. Although no specific marker for breast cancer has been found as yet, recent work points to the considerable promise that biologic markers may have for detection of breast cancer. While no single marker thus far appears to be specifically for breast cancer, improved specificity may be possible by using a combination of several markers.[1]

Researchers working in this area face a common difficulty, namely, the availability of appropriate and well characterized clinical material. When a promising lead appears on the horizon, often an objective clinical evaluation is difficult. Therefore, to prepare for the eventuality of a discovery of a breast-cancer specific marker or a combination of markers, the national serum collection effort is being generated.

## CASE CONTROL INTERVIEW STUDY

Participation in a case-control interview study conducted by the National Cancer Institute commenced in January, 1978. The Central Data Management Center for all the national breast cancer detection demonstration projects will identify all breast cancer cases that have occurred during the history of the projects. Two participants are matched: one who has undergone a biopsy which indicated benign disease and one whose examination results were normal. These two women are then matched with a woman with breast cancer on the basis of age, race and date of screening.

The roster of those women attending the Columbia Center who are thus chosen will be sent to the staff of the Columbia project so that they may approve or disapprove any contact of the individual involved. Following this action and after the cooperation of the participant has been established, an interview will be conducted regarding known and suspect risk factors for breast disease.

The information accumulated can allow for a number of assessments of specific practical value among which are (1) identification of the determinants (risk factors) of breast cancer among women who voluntarily participate in a screening program, (2) assessment of the risk of malignancy among subgroups of women with specific sets of multiple risk factors and (3) more adequate evaluation of some of the more speculative risk factors for this disease than has been possible to this time.

## CARCINOMA OF THE BREAST—A DECISION ANALYTIC APPROACH TO EVALUATING ALTERNATIVE DIAGNOSTIC STRATEGIES

Studies by physicians have shown how difficult it can be for even seasoned, well-trained physicians who are presented with the same data on a case to agree on how to proceed. Other studies have shown how difficult it is for physicians to anticipate the outcome in a case. These and related issues intensify the need for analytically based guidelines for resolving the fundamental question of what care should be provided in a particular case.

Decision analysis is a methodology for dealing with situations in which uncertainty is an important factor. It is particularly well suited to medical decision making for this reason, thus providing a powerful formal framework for combining subjective and statistical data, clinical judgment, laboratory test results and patients' and others' attitudes toward risk in an analytical search for the best course of action in a particular case.

Washington University investigators, John K. Gohagan, Ph.D. and Walter F. Ballinger, M.D. and Cancer Research Center investigator, Ned D. Rodes, M.D., will use the data generated by the Breast Cancer Detection Demonstration Project to build an analytical basis for choosing a particular diagnostic strategy for a particular patient. They will analyze the common diagnostic strategies employing various combinations of clinical evidence and thermographic and mammographic information. They will attempt to identify the conditions under which each is preferable and determine the marginal value of various procedures in particular situations. Such factors as costs, attitudes toward risk, possible outcomes and reductions in uncertainty from specific diagnostic procedures will be considered.

Provided that this preliminary work is successful, efforts will be expanded to include even larger data bases and more extensive analyses. This pilot study will provide a basis for preparing a research proposal to continue the effort and complete the large scale decision analysis that is warranted.

## CONCLUSION

The cumulative effort in Missouri has been considerable and wide-ranging. These programs involve multidisciplinary medical and research teams and the spectrum of application ranges from the practical and immediately applicable to the speculative and analytical. All phases require careful monitoring and long-term evaluation to insure maximum benefit for the health professions and the female population of Missouri.

## REFERENCES

1. Tormey, D. C., Waalkes, T. P., Ahmann, D., Gehrke, C. W., Zumwatt, R. W., Snyder, J. and Hansen, H.: Biological Markers in Breast Carcinoma. I. Incidence of Abnormalities of CEA, HCG, Three Polyamines, and Three Minor Nucleosides. Cancer 35:1095, 1975.

*Reprints: Corinne Farrell, M.D.*
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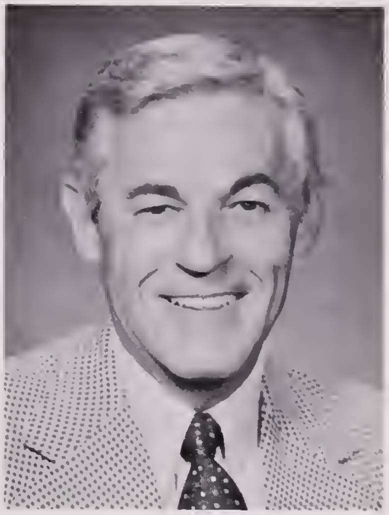
# President's Message



John N. Martin, M.D.

You have one vote — use it.

"Some have said that it is not the business of private men to meddle with government — a bold and dishonest saying which is fit to come from no mouth but that of a tyrant or a slave. To say that private men have nothing to do with government is to say that private men have nothing to do with their own happiness or misery; that people ought not concern themselves whether they be naked or clothed, fed or starved, deceived or instructed, protected or destroyed." — Cato.

In the legislative body in Missouri, we have senators and representatives. Now for the question: do you know who represents you and your district in the Senate and in the House? Other questions: Did you vote for them? Are they running again? Do they have opposition? Do you know the opposition?

If you do not know the candidates, how are you going to know if they are honest and trustworthy and whether they best represent the district and whether they will work to reduce government interference in our lives?

This country is in bad shape when you think that more than 200,000,000 people wake up every morning with either halitosis, BO or athlete's foot.

Just think. If all physicians would vote and if all auxiliary members would vote and if your relatives, your office staff, your friends and patients would vote, what a turnout we would have.

By the way, **you *are* registered to vote?**

G. K. Chesterton said, "I do not believe in a fate that falls on men however they act; but I do believe in a fate that falls on them unless they act."

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# MSMA Auxiliary

## MSMA AND THE AUXILIARY

It is rewarding to be a part of the MSMA Auxiliary and have the opportunity to observe and participate in the close relationship of our two organizations in working together for our common interests and goals.

To help the auxiliary in increasing its membership, the MSMA will publish a brochure which will contain information about the auxiliary, its purpose and accomplishments. The brochure will be included in the MSMA packets for new members to deliver to their spouses. This will provide a new source of potential auxiliary members heretofore unavailable to us. The auxiliary is deeply appreciative and believes this can be our most effective way to contact potential members in communities throughout the state.

**Mrs. A. J. Campbell**
**President**

The MSMA also has asked the auxiliary for assistance in the field of legislation by providing an auxiliary member as a contact person in the representative and senatorial districts in which they reside. Via these additional contacts, we intend to be effective in informing our legislators of our Association's recommendations in regard to legislation pertaining to medicine and public health.

A special privilege is the invitation to the auxiliary president and president-elect to attend the MSMA Council meetings. This provides us with a deeper understanding of the Association's activities and objectives. It is a special privilege because it is not observed by all state associations.

I have been speaking on the state level. Does this situation exist in your county? I sincerely encourage your county medical society and auxiliary to follow suit and work closely with each other. Physicians are often in the best position to recognize a need within the community, but do not have time to investigate ways to fill this need. When this occurs, please ask your county auxiliary for assistance. Community health and community service are two of our major concerns.

When such cooperation exists, you can be assured that the medical community will be strengthened. It's true. We can do more together.

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2. Have his home residence in Missouri.
3. Be in need of financial aid to complete his or her medical education.

### GENERAL CONDITIONS

1. Loans will be granted by the Missouri State Medical Foundation Student Loan Committee on the basis of financial need of the student and with due consideration of the student's background, references, academic achievement, etc.
2. Loans will be made for any worthy purpose directly connected with furtherance of the student's medical education, including tuition, fees, books, equipment needed for medical education, necessary living expenses while in residence at the school, etc.
3. Ordinarily, the maximum loan for any student for any one school year will be $1,500. A student holding one or more loans from the Foundation or any similar loan fund shall be eligible to apply for further assistance if the need exists, but such assistance shall not be obligatory on the Foundation Committee.
4. Proceeds of the Loan will be paid to the student for disbursement.
5. Decisions of the Foundation Student Loan Fund Committee in granting of loans will be final.

### INTEREST AND REPAYMENT PROVISIONS

1. Loans will bear interest at the rate of 2% per annum from the date of the loan through two years after the date the recipient begins the practice of medicine. Such interest may be paid at the student's option at any time after receipt of the loan, but payment of interest is not obligatory until the principal of the loan becomes due and payable.
2. The principal of the loan, and accrued interest, will become due and payable one year after the date the recipient begins medical practice, with the provision that repayment shall be completed in no more than four additional years from the date and that no less than one fifth of the total original principal, plus accrued interest, shall be due each year.
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# In Memoriam

**Walter H. Spoenenman,** M.D., 3514 Longfellow, St. Louis 63104; a graduate of Rush Medical College, 1920; member of St. Louis Medical Society; age 85; died July 24, 1978.

**Kenneth V. Larsen,** M.D., 220 Northland Medical Bldg., St. Louis 63136; a graduate of Washington University, 1935; member of St. Louis Medical Society; age 70; died July 30, 1978.

**Marion A. Webb,** M.D., 7744 Mohawk Pl., Clayton 63105; a graduate of St. Louis University, 1924; member of St. Louis Medical Society; age 83; died Aug. 1, 1978.

**Raymond J. Bozzo,** M.D., 205 Elm, Washington 63090; a graduate of St. Louis University, 1943; member of Franklin-Gasconade-Warren County Medical Society; age 60; died Aug. 3, 1978.

**John J. McKinsey,** M.D., 1900 S. National, Springfield 65804; a graduate of Southwestern Medical College, 1957; member of Greene County Medical Society; age 46; died Aug. 29, 1978.

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**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

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**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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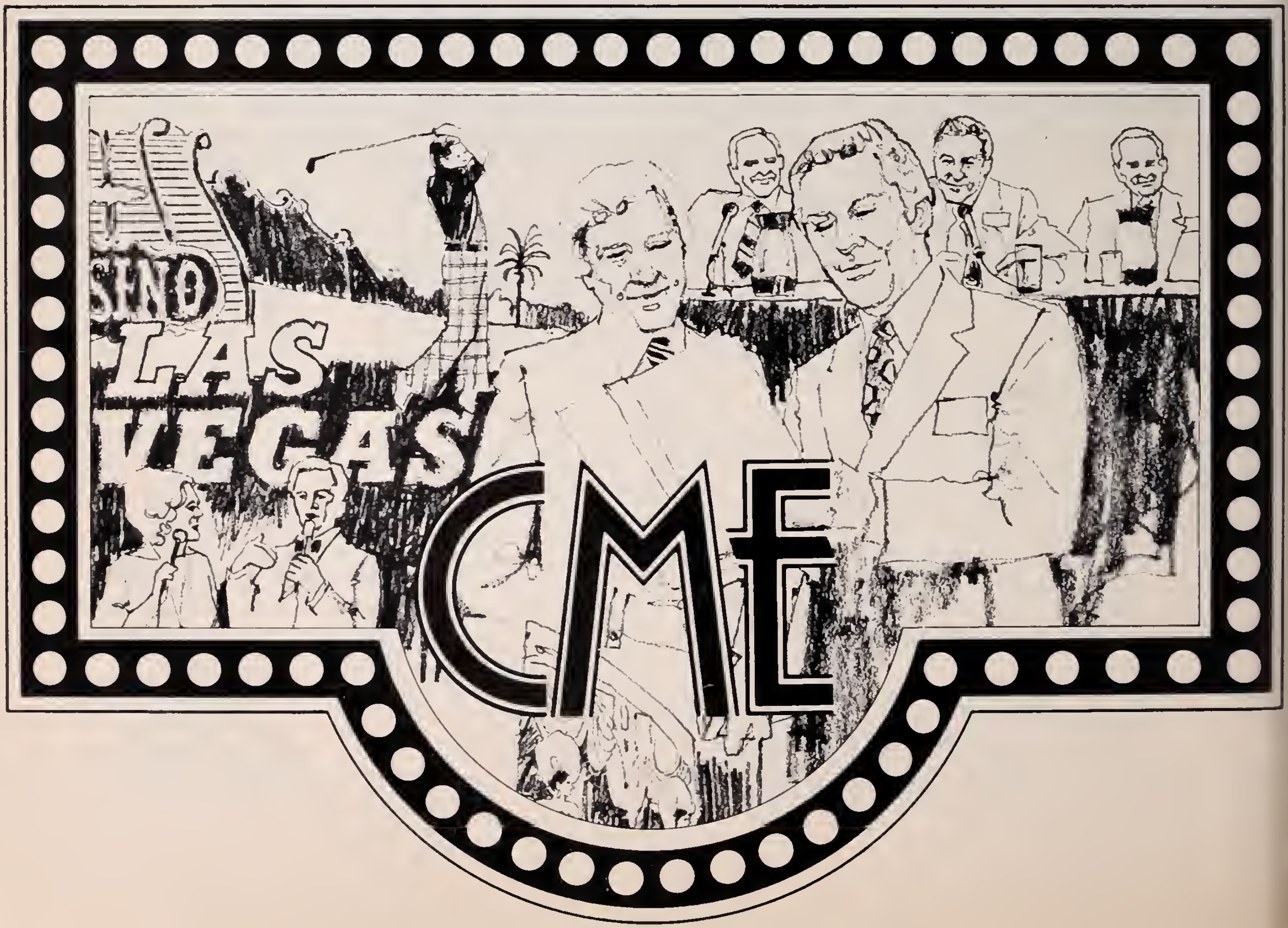

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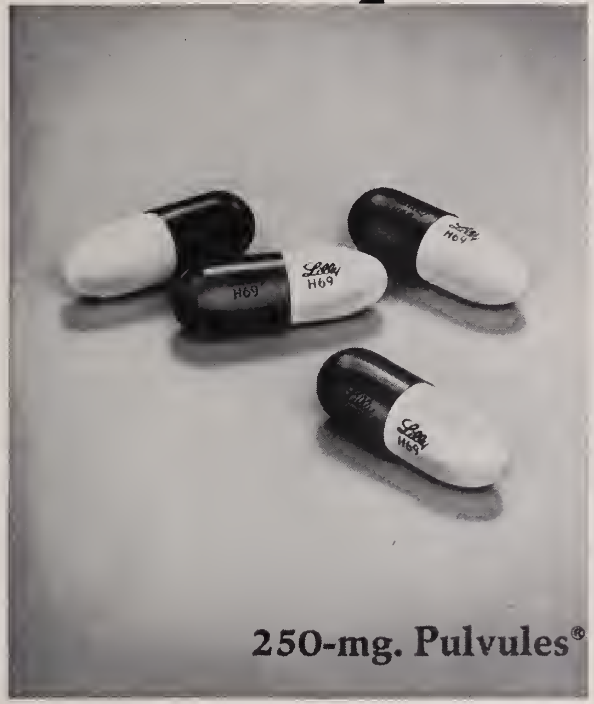

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1. Goldberg HL, Finnerty RJ, Cole JO: Doxepin: Is a single daily dose enough? *Am J Psychiatry* 131:1027-1029, 1974.

**Brief Summary of Prescribing Information**
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**Indications**—Relief of symptoms of anxiety and depression.

**Contraindications**—Glaucoma, tendency toward urinary retention, or hypersensitivity to doxepin.

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Usage in children under 12 years of age is not recommended. MAO inhibitors should be discontinued at least two weeks prior to the cautious initiation of therapy with this drug, as serious side-effects and death have been reported with the concomitant use of certain drugs and MAO inhibitors.

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**Adverse Reactions**—Dry mouth, blurred vision and constipation have been reported. Drowsiness has also been observed.

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**Dosage and Administration**—In mild to moderate anxiety and/or depression: 25 mg t.i.d. Increase or decrease the dosage according to individual response. Daily dosage, up to 150 mg may be taken at bedtime without loss of effectiveness. Usual optimum daily dosage is 75 mg to 150 mg per day not to exceed 300 mg per day.

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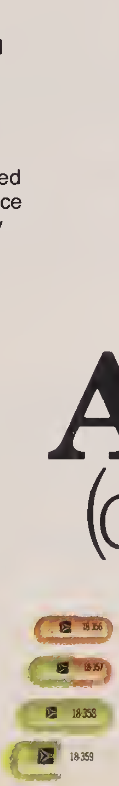

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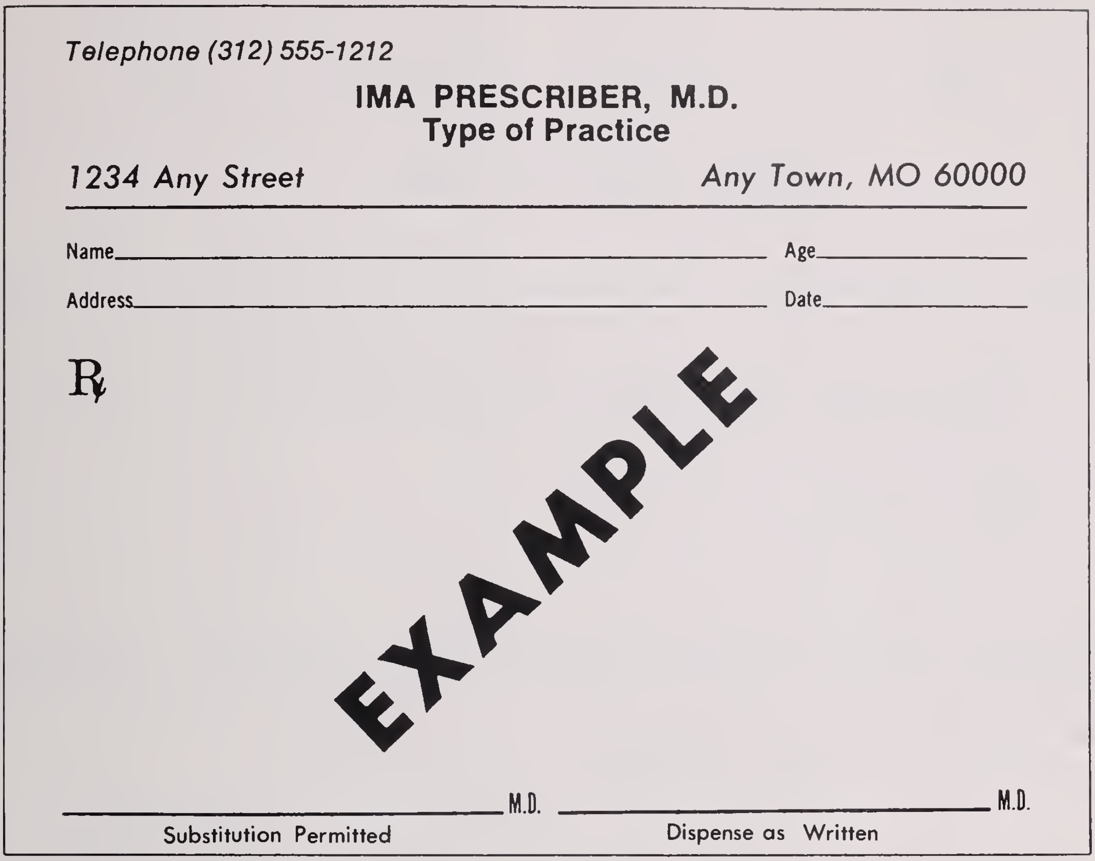

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According to the new law, no prescription shall e valid unless the prescription form has two sigature lines at opposite ends at the bottom of the rm. The words, "Dispense as Written," must be rinted under the line on the right side and e words, "Substitution Permitted," must be rinted under the line on the left side.

If the physician signs on the right side, a pharacist cannot substitute a generic equivalent rug for the brand name requested. However, if e form is signed on the left side, substitution is ermitted.

The sample prescription form pictured above ows how the two signature lines should appear ter Jan. 1, 1979:

The wording of the law states the following:

2. A pharmacist who receives a prescription for a brand name drug may, unless requested otherwise by the purchaser, select a less expensive generically equivalent product under the following circumstances:

(1) If a written prescription is involved, the prescription form used shall have two signature lines at opposite ends at the bottom of the form. Under the line at the right side shall be clearly printed the words: "Dispense as Written." Under the line at the left side shall be clearly printed the words "Substitution Permitted." The prescriber shall communicate the instructions to the pharmacist by signing the appropriate line. No prescription shall be valid without the signature of the prescriber on one of these lines.

(2) If an oral prescription is involved, the practitioner or the practitioner's agent communicating the instructions to the pharmacist, shall instruct the pharmacist as to whether or not a therapeutically equivalent generic drug may be substituted. The pharmacist shall note the instructions on the file copy of the prescription.

3. All prescriptions written in the state of Missouri by practitioners authorized to write prescriptions shall be on forms which comply with section 2 hereof.

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|---|---|---|---|---|---|---|
| | | | *First yr.* | *Renewal* | *First yr.* | *Renewal* |
| Class | I | No Surgery | 594 | 374 | 464 | 288 |
| | II | Minor Surgery | 983 | 563 | 768 | 432 |
| | IIID | Urologist, Opthalmology, Proctologist | 3,744 | 2.304 | 2.880 | 1,728 |
| | IVB | General Surgeon | 4,880 | 3,080 | 3,840 | 2,400 |
| | IVA | Otolaryngologists, OBGYN, Plastic | 6,243 | 3,795 | 4,896 | 2.938 |
| | IVG | Thoracic, Neuro, Orthopedists | 7,956 | 4,836 | 6,240 | 3,744 |
| | IVH | Anesthesiologists | 8,434 | 5,074 | 6,624 | 3,936 |

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| | | | *200/600* | | *$1 Mil. Excess* | |
|---|---|---|---|---|---|---|
| | | | *First yr.* | *Renewal* | *First yr.* | *Renewal* |
| Class | I | No Surgery | 540 | 340 | 400 | 240 |
| | II | Minor Surgery | 819 | 469 | 640 | 360 |
| | IIIC | Urologist, Opthalmology, Proctologist | 3,120 | 1,920 | 2,400 | 1,440 |
| | IVC | General Surgery | 4,067 | 2,567 | 3,200 | 2,000 |
| | IVD | Otolaryngologist, OBGYN, Plastic | 5,202 | 3,162 | 4,080 | 2,448 |
| | IVE | Thoracic, Neuro, Orthopedists | 6,630 | 4,030 | 5,200 | 3,120 |
| | IVF | Anesthesiologists | 7,028 | 4,228 | 5,520 | 3,280 |

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# New Members

**Stephen M. Ayres,** M.D., 1325 South Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Ayres is a native of Elizabeth, N. J., received his preliminary education at Gettysburg College and his M.D. degree at Cornell University in 1955. He specializes in cardiology.

**Javed I. Bangash,** M.D., Woodland Hospital, 346 Woodland Ave., Moberly 65270, has become a member of Chariton-Macon-Monroe-Randolph County Medical Society. Dr. Bangash is a native of Kohat, Pakistan, received his preliminary education at Edwarde's College and his M.D. degree at Khyber Medical College in 1970. He specializes in pediatrics.

**Douglas B. Bogart,** M.D., 415 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Bogart is a native of Holton, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1971. He specializes in cardiology.

**John M. Davis,** M.D., 628 Rockhill Medical Bldg., 6700 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Davis is a native of Kansas City, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Kansas City in 1975. He specializes in internal medicine.

**Antoni M. Diehl,** M.D., 410 Medical Plaza, 4320 Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Diehl is a native of Minneapolis, Minn., received his preliminary education at the University of Minnesota and his M.D. degree at the University of Minnesota in 1948. He specializes in pediatric cardiology.

**John E. Ervin,** M.D., 415 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Ervin is a native of St. Louis, received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Kansas in 1973. He specializes in rheumatology.

**Theodore J. Glenn,** M.D., 1922 Sherwood Ave., Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Glenn is a native of Alto, Tex., received his preliminary education at Sam Houston State Teachers College and his M.D. degree at Southwestern Medical School in 1955. He specializes in family practice.

**James R. Green,** M.D., 501 Teaco Rd., Kennett 63857, has become a member of Dunklin County Medical Society. Dr. Green is a native of Kennett, received his preliminary education at Memphis State University and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in obstetrics and gynecology.

**Jung H. Lee,** M.D., P. O. Box 309, Crystal City 63019, has become a member of Jefferson County Medical Society. Dr. Lee is a native of Kyungpook, Korea, received his preliminary education at Kyungpook National University and his M.D. degree at Kyungpook National University in 1969. He specializes in internal medicine and cardiology.

**Durnell McLaughlin,** M.D., 502 Citadel Bldg., 1734 East 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. McLaughlin is a native of Cordele, Ga., received his preliminary education at Fort Valley State College and his M.D. degree at Meharry Medical College in 1970. He specializes in ophthalmology.

**K. P. G. Nair,** M.D., 2601 North Whittier, St. Louis 63113, has become a member of St. Louis Medical Society. Dr. Nair is a native of Trivandrum, India. He received his M.D. degree at Medical College. He specializes in internal medicine.

**Dilip L. Narayan,** M.D., 5505 Delmar, St. Louis 63112, has become a member of St. Louis Medical Society. Dr. Narayan is a native of Madras, India, received his preliminary education at Loyola College, Madras University, and his M.D. degree at Madras Medical College in 1968. He specializes in internal medicine and gastroenterology.

**George K. Parkins, II,** M.D., 500 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Parkins is a native of St. Louis, received his preliminary education at Westminster College and his M.D. degree at Columbia University in 1971. He specializes in orthopedic surgery.

*(Continued on next page)*

**Ronald L. Robinson,** M.D., 1117 Patricia, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Robinson is a native of Cape Girardeau, received his preliminary education at Southeast Missouri State University and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine.

**Lawrence A. Rues,** M.D., Goppert Family Care Center, 6601 Rockhill Rd., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Rues is a native of Kansas City, received his preliminary education at Rockhurst College and his M.D. degree at the University of Missouri-Kansas City in 1975. He specializes in family practice.

**Lindbergh S. Sata,** M.D., 1221 South Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Sata is a native of Portland, Ore., received his preliminary education at the University of Utah and his M.D. degree at the University of Utah in 1958. He specializes in psychiatry.

**Garland R. Tschudin,** M.D., 2744 Russell, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Tschudin is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1975. He specializes in pediatrics.

**Corinne A. Walentik,** M.D., 7234 Princeton, St. Louis 63130, has become a member of St. Louis Medical Society. Dr. Walentik is a native of New York, received her preliminary education at St. Louis University and her M.D. degree at St. Louis University in 1974. She specializes in pediatrics.

**Roger W. Wilson,** M.D., 500 Penn Park, 2929 Baltimore, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Wilson is a native of Columbia, S. C., received his preliminary education at the universities of California and Kansas and his M.D. degree at the University of Kansas in 1971. He specializes in orthopaedic surgery.

**Elham Youssef,** M.D., 1325 South Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Youssef is a native of Assiut, Egypt. He received his M.D. degree at Ein Shims in 1962. He specializes in anesthesiology.

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# Third National Conference on the Impaired Physician

The Third National Conference on the Impaired Physician is planned for Sept. 29-Oct. 1, 1978 at the Sheraton Ritz Hotel in Minneapolis, Minn.

Sponsored by the American Medical Association and the Minnesota Medical Association, the conference will cover all areas of impairment. Conferees will meet both in plenary session and workshop groups. Topics to be discussed in plenary sessions cover such areas as physicians' perception of and attitude toward disabled colleagues, overview of impaired physician programs and the legal aspects of impairment.

Workshop subjects include prevention of impairment; confrontation techniques; treatment alternatives for residents and medical students; psychiatry and impaired physicians; and medical marriages and impairment.

The 35-person conference faculty is a broad-based group of professionals composed of such well-known spokespeople as Le Clair Bissell, M.D., chief, the Smithers Alcoholism Treatment and Training Center in New York; Ralph Crawshaw, M.D., Friends of Medicine in Portland, Ore.; Robert A. Lang, Ph.D., executive director, Academy of Medicine of Cleveland; Robert M. Morse, M.D., director, Alcoholism and Drug Dependence Unit, Mayo Clinic; Rogers J. Smith, M.D., associate clinical professor, Department of Psychiatry, University of Oregon; and G. Douglas Talbott, M.D., chairman, Medical Association of Georgia, Physician Consultants to Disabled Doctors Plan.

For further information on the program contact Mary B. Huginin, Department of Mental Health, American Medical Association, (312) 751-6574.

A citizen has a complex duty. He ought to learn to express his opinions and to make up his mind pro and con on the principal public issues. He ought never to miss the ballot box. And when he casts his vote for somebody, he should weigh that somebody in the scale of morals — including intellectual integrity. — Herbert Hoover

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# Division of Health Presents Symposiums On Problems of High Risk Pregnancies

Mini-workshops and special symposiums dealing with problems of high risk pregnancies are planned for physicians and nurses in all parts of Missouri, starting this fall. The specialized programs are being presented under grants from the High Risk Maternity and Child Care Program of the Missouri Division of Health.

Dr. Robert Hall of Kansas City, who announced the grants, said the programs will help meet the need for educational outreach opportunities concerning problems of the perinatal period. Topics of the programs will include such problems as identification of high risk pregnancies, prepartum and intrapartum management, recent developments in treatment of premature labor and management of special problems such as jaundice and cyanosis.

Approval of the grants was voted for the current 1978-1979 budget period by the Educational Advisory Committee of the High Risk Program at its meeting in Kansas City in June. The committee, chaired by Dr. Hall, also made recommendations to insure that the programs will be available at a variety of locations throughout the State.

The workshops will be presented by Cox Medical Center, Springfield; Kirksville Osteopathic Hospital; Truman Medical Center, Kansas City; St. Louis Children's Hospital; Cardinal Glennon Hospital, St. Louis; St. Mary's Health Center, St. Louis; Methodist Medical Center, St. Joseph; and University of Missouri Medical Center, Columbia.

Other requests for grants still are under consideration by the Advisory Committee pending final development of plans.

Physicians and nurses, hospitals and other groups interested in the program should contact Dr. Gerald Van Leeuwen of the Section of Medical Care, Division of Health, Jefferson City or the nearest center presenting a program.

The grants are made available for the educational outreach efforts by the Bureau of Prevention of Mental Retardation to focus attention on the special problems of pregnancies during the weeks immediately prior to and after birth. This is the period most critical in efforts to prevent the birth of mentally retarded infants.

The High Risk Program of the State Division of Health is funded by the Missouri General Assembly to assure needed care for women diagnosed as in risk of giving birth to a mentally defective infant. Assistance is available to women with identified conditions of hypertension, multiple fetuses, antepartum hemorrhage after 20 weeks gestation, severe diabetes mellitus, premature rupture of membranes diagnosed prior to 37 weeks gestation and Rh sensitivity and other isoimmunized conditions.

Assistance also is available for the care of infants born to high risk mothers and other infants with respiratory distress syndrome.

Further information concerning the program may be obtained by writing to the Bureau of Prevention of Mental Retardation, State Division of Health, Box 570, Jefferson City, MO 65102.

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FAMILY PRACTICE — Solo Board Certified family practitioner is seeking a family practice associate in growing community 6 miles north of Kansas City International Airport. Contact, Carl M. Myers, M.D., Platte Medical Clinic, Platte City, Mo. 64079. (816) 431-2200.

OTOLARYNGOLOGY INSTRUMENTS AND EQUIPMENT — For sale due to sudden death. Includes Zeiss operating microscope, E.N.G. table, middle-ear analyzers, laryngoscopic and bronchoscopic instruments as well as all office equipment and waiting room furnishings. In excellent condition. Many purchased within the past year. For complete list and prices, write to Box CA-447, Missouri State Medical Association, 113 Madison, Jefferson City, Mo. 65102.

OPPORTUNITY IN FAMILY PRACTICE — Two Board certified family physicians need third physician. New office connected to new hospital (250 beds) with all ancillary and specialized services available. Any interested physicians please send curriculum vitae to Link, Chapman & Associates, Inc., 1515 West Truman Road, Independence, MO 64050 or call collect (816) 836-8200 from 9 AM to 4:30 PM.

FAMILY PHYSICIAN AND/OR INTERNIST — For busy 11-man incorporated multispecialty group in growing small city 60 miles south of St. Louis. Drawing area approximately 50,000. Pleasant living, excellent schools, most churches. Half-mile to modern 125-bed hospital. J. G. Hirsch, Administrator, Medical Arts Clinic, Inc., Farmington, MO 63640. (314) 756-6751.

FOR SALE—One GYN table and stool, $250. One pediatric table, $250. One Fischer x-ray (100 milliamperes) with table, Buckey, all dark room equipment, films, etc., $2,000. Contact Lawrence E. Giffen, D.O., 420 E. High, Jefferson City, Mo. 65101. Phone (314) 634-0181.

PEDIATRICIAN AND FAMILY PRACTITIONER WANTED — In multispecialty group of surgeons, cardiologist and Ob/Gyn. Modern JCAH-approved hospital. Community of 10,000 with drawing population of 15,000-20,000. Free housing and office rental — 1 year. Guarantee negotiable. Contact Sister Marita Pozek, Administrator, St. Vincent's Hospital, Monett, MO 65708. Telephone (417) 235-3144.

PICKER DYNA IV CAMERA — Two and one-half years old, two collimators, Dunn Instrument Multi-Formator, asking $25,000. Contact Department of Nuclear Medicine, St. John's Mercy Medical Center, 615 S. New Ballas Rd., St. Louis, MO 63141. (314) 569-6464.

ORTHOPEDIST — Needed for long-established multispecialty group in northwest St. Louis County. Locums Tenens considered. Forward curriculum vitae to Glenn W. Kelley, Administrator, Medical Center of Florissant, 1125 Graham Road, Florissant, MO 63031.

GENERAL SURGEON — Board certified general surgeon seeks solo, group or partnership practice. Willing to do some general practice. Also consider buying practice. Reply to CA Box 448, Missouri State Medical Association, 113 Madison, Jefferson City 65102.

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# *Missouri Medicine in Review*

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

The 1938 session of the American Medical Association was the fifth to be held in San Francisco. The last session there was in 1923. The membership of the AMA in 1923 was 88,159; today it is 109,435, the largest number ever recorded in the history of the organization.

The Missouri State Medical Association was represented in the AMA House of Delegates by Drs. Carl F. Vohs, St. Louis; James R. McVay, Kansas City; A. R. McComas, Sturgeon; H. L. Kerr, Crane; and Dr. E. H. Skinner. St. Louis was chosen as the site for the meeting in 1939.

On June 22, the State Board of Health, St. Mary's Hospital and Cole County Medical Society in Jefferson City had as a guest Dr. Reuben L. Kahn, University of Michigan, the originator of the Kahn test. A large audience of physicians and laboratory technicians from Central Missouri attended, along with physicians and technicians from St. Louis, Springfield, Fulton, Columbia, California, Versailles and Boonville.

Thirty members attended the Buchanan County Medical Society meeting at the Missouri Methodist Hospital in St. Joseph on June 1. President G. T. Bloomer presided. It was moved by Dr. W. T. Stacy that the Society approve the film, "The Birth of a Baby." The motion was seconded by Dr. Cabray Wortley and carried.

## TWENTY-FIVE YEARS AGO

During the calendar year 1952, 61 physicians began private practice in Missouri, exclusive of Jackson County, St. Louis County and St. Louis city.

*Industrial medicine in the raw:* In 1786, Benjamin Franklin described lead poisoning from rum distilled with leaden still heads and worms. The Massachusetts legislature immediately passed a law prohibiting such stills.

The book, "Doctors in Blue," by George Worthington Adams, was published by Henry Schuman, New York, N. Y. The price was $4.

Doctors of the present day will find this book an interesting medical history of the Union Army in the Civil War. It discusses the entire story, beginning with what might be called "medical confusions of 1861."

In this war, some 300,000 Union soldiers lost their lives. The Army Medical Department was poorly prepared for combat, as was the Army itself.

In reading this book, one must remember that in the years of 1861 to 1865, little was known about infection or the transmission of disease by vectors. This war preceded Lister's monumental work in antiseptic surgery. It is to the credit of General McLellan, commander of the Army of the Potomac, that he tried his best to improve medical conditions and succeeded in some respects.

## TEN YEARS AGO

Contributions totaling more than $33,000 were made to Missouri's three medical schools by the AMA's Education and Research Foundation (AMA-ERF). David N. Kerr, M.D., president of the Missouri State Medical Association, presented the grants to the deans of the schools at the luncheon at the University Club in St. Louis. Robert H. Felix, M.D., St. Louis University School of Medicine, received $14,184; M. Kenton King, M.D., Washington University School of Medicine, received $13,520; and William D. Mayer, M.D., University of Missouri-Columbia School of Medicine, received $5,966.

Dr. Henry E. Oppenheimer has been elected president of the Medical Alumni Association of St. Louis School of Medicine. He is an associate clinical professor of internal medicine and a former president of the medical staff at the St. Louis University hospitals.

David Lee Stabenow of Shawnee Mission, Kan., a senior medical student at Washington University, received the Alpha Omega Alpha prize for achieving the highest average for the four-year medical course and the Missouri State Medical Association award of a scroll and a $100 U. S. Savings Bond for highest scholastic average.

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**Indications and Usage: For the treatment of urinary tract nfections due to susceptible strains of the following or-janisms:** *Escherichia coli, Klebsiella-Enterobacter, Proteus nirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended hat initial episodes of uncomplicated urinary tract infections e treated with a single effective antibacterial agent rather han the combination.** *Note:* The increasing frequency of resis-ant organisms limits the usefulness of all antibacterials, espe-ially in these urinary tract infections.

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The recommended quantitative disc susceptibility method *ederal Register, 37*:20527-20529, 1972) may be used to esti-nate bacterial susceptibility to Bactrim. A laboratory report of Susceptible to trimethoprim-sulfamethoxazole" indicates an infec-on likely to respond to Bactrim therapy. If infection is confined to e urine, "Intermediate susceptibility" also indicates a likely re-ponse. "Resistant" indicates that response is unlikely.

**Contraindications:** Hypersensitivity to trimethoprim or sul-namides; pregnancy; nursing mothers; infants less than two onths of age.

**Warnings:** Deaths from hypersensitivity reactions, agran-locytosis, aplastic anemia and other blood dyscrasias have been ssociated with sulfonamides. Experience with trimethoprim is uch more limited but occasional interference with hematopoiesis as been reported as well as an increased incidence of throm-openia with purpura in elderly patients on certain diuretics, rimarily thiazides. Sore throat, fever, pallor, purpura or jaundice ay be early signs of serious blood disorders. Frequent CBC's e recommended; therapy should be discontinued if a signifi-antly reduced count of any formed blood element is noted.

**Precautions:** Use cautiously in patients with impaired renal hepatic function, possible folate deficiency, severe allergy or ronchial asthma. In patients with glucose-6-phosphate dehy-ogenase deficiency, hemolysis, frequently dose-related, may ccur. During therapy, maintain adequate fluid intake and perform equent urinalyses, with careful microscopic examination, and nal function tests, particularly where there is impaired renal nction.

**Adverse Reactions:** All major reactions to sulfonamides and methoprim are included, even if not reported with Bactrim. *ood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblas-anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, poprothrombinemia and methemoglobinemia. *Allergic reac-ns:* Erythema multiforme, Stevens-Johnson syndrome, eneralized skin eruptions, epidermal necrolysis, urticaria, serum ckness, pruritus, exfoliative dermatitis, anaphylactoid reactions, riorbital edema, conjunctival and scleral injection, photosensiti-tion, arthralgia and allergic myocarditis. *Gastrointestinal reac-ns:* Glossitis, stomatitis, nausea, emesis, abdominal pains, patitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

**Dosage: Not recommended for infants less than two months of age.**

*Urinary Tract Infections:* Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

*Children two months of age or older:*

| Weight | | Dose—every 12 hours | |
|---|---|---|---|
| lbs | kgs | Teaspoonfuls | Tablets |
| 20 | 9 | 1 teasp. (5 ml) | ½ tablet |
| 40 | 18 | 2 teasp. (10 ml) | 1 tablet |
| 60 | 27 | 3 teasp. (15 ml) | 1½ tablets |
| 80 | 36 | 4 teasp. (20 ml) | 2 tablets or 1 DS tablet |

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|---|---|
| Above 30 | Usual standard regimen |
| 15-30 | ½ the usual regimen |
| Below 15 | Use not recommended |

*Pneumocystis carinii pneumonitis:* Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

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**121st MSMA Annual Session**
**April 19-22, 1979, St. Louis**

THE MESSAGE OF TENSION
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SWEATS
TENSE, TAUT MUSCLES
HYPERVENTILATION
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**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or over-

hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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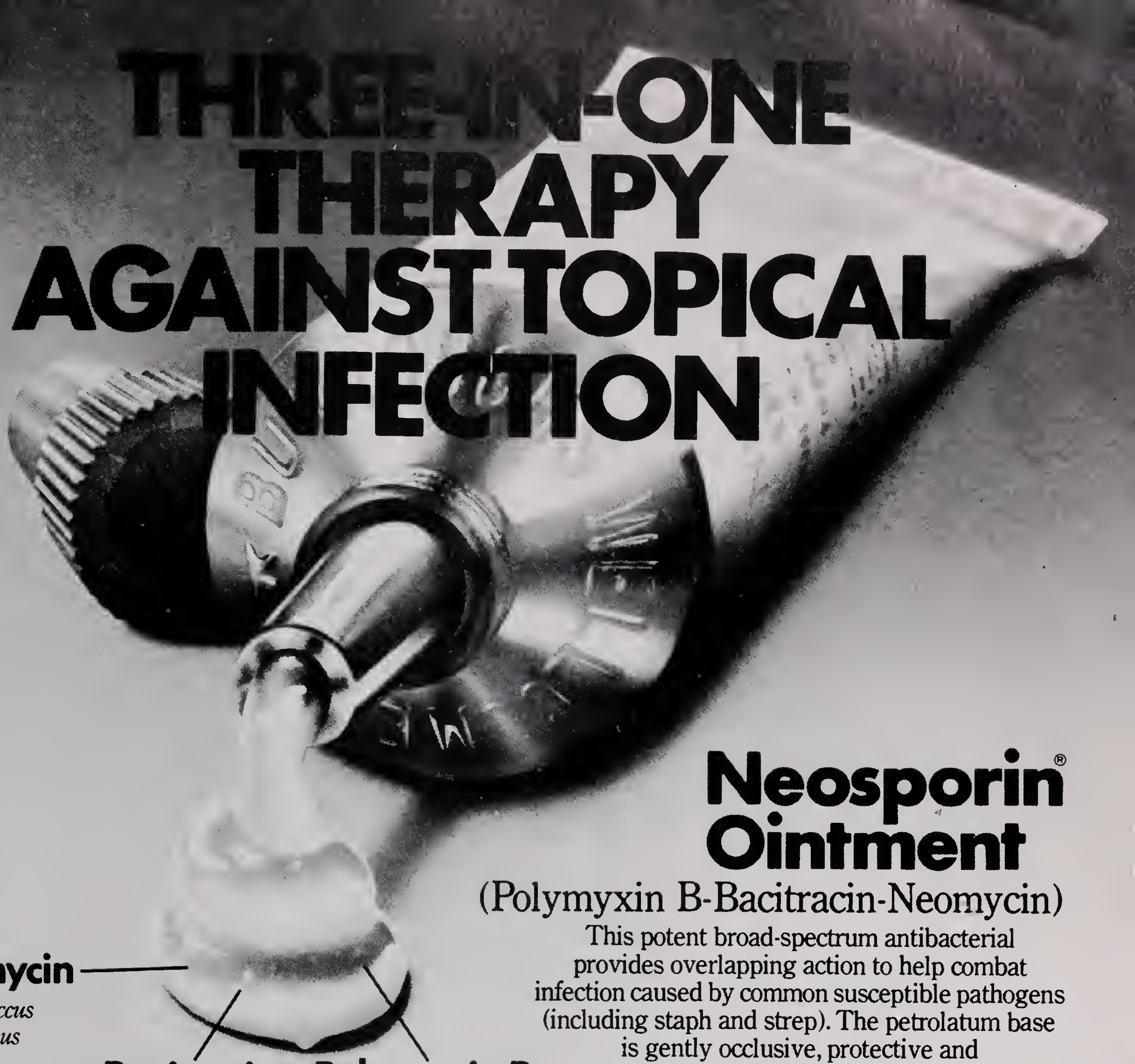

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When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

# Missouri Medicine

THE JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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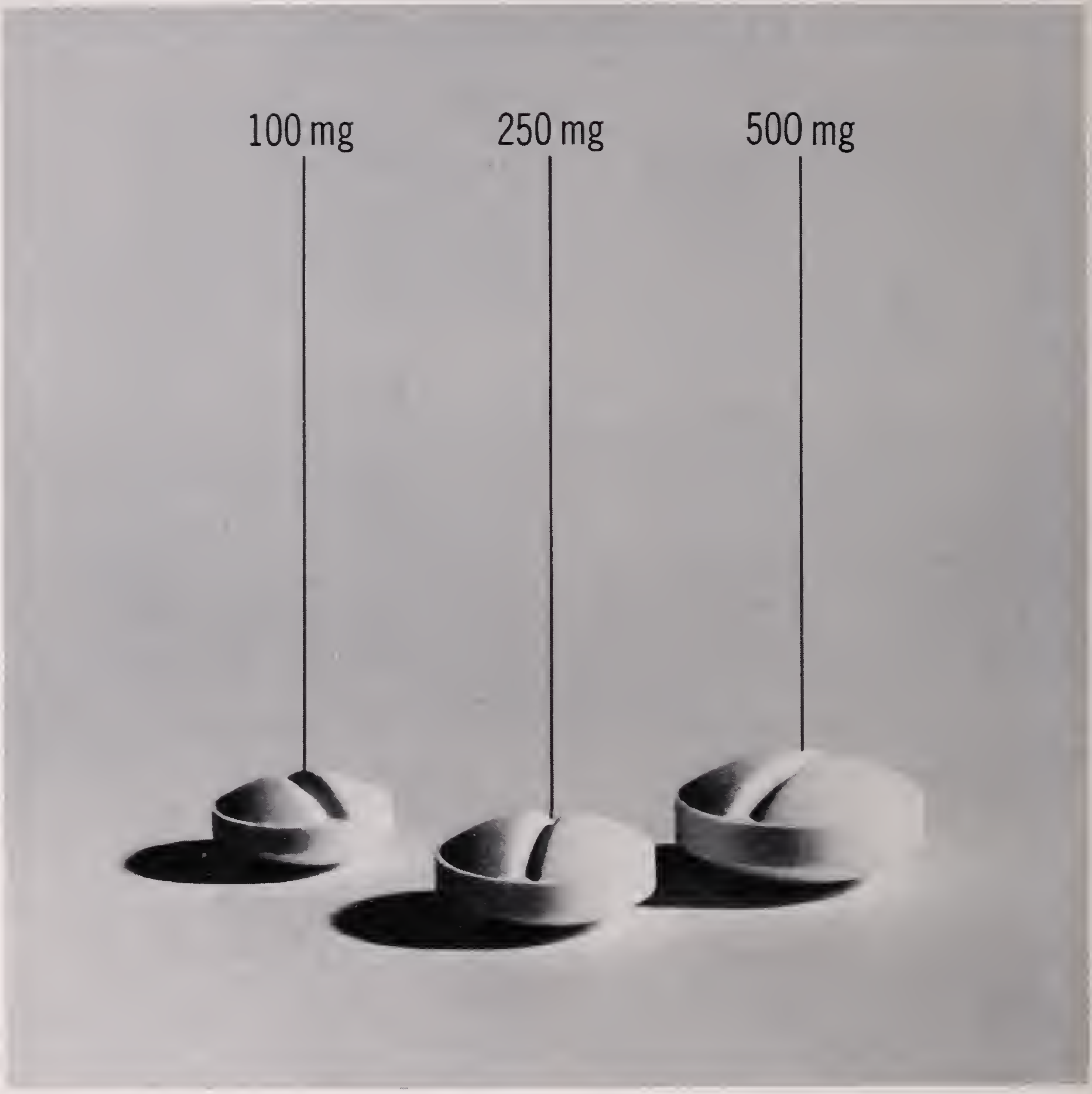

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MSMA NEWS ROUND-UP

October, 1978

# Council votes on representation proposals

During the September meeting in Jefferson City, the MSMA Council voted on four proposals concerning representation on the Council to be presented at the November meeting of the House of Delegates.

The MSMA Council believes that Proposal No. 1, the primary plan, would provide the most equitable, efficient Council. This plan would retain the present district boundaries, but an additional Councilor would be allowed for each 400 members or fraction thereof. The MSMA Secretary and Treasurer would be elected by the Council from the Council.

An alternate proposal is a variation of Proposal No. 1. The Councilor Districts would remain the same, but there would be an extra Councilor for each additional 1,100 members. The MSMA Secretary and Treasurer would be elected by the Council from the general membership as is now done.

The third alternate plan is the "weighted voting" proposal offered by the Planning Committee. The makeup of the districts would not change, but each Councilor's vote would be weighted to represent the total number of members in that district. MSMA officers would remain the same, but only Councilors would have a vote.

The fourth alternate plan would redistrict the state geographically into nine districts. Each district would be allowed one Councilor for the first 500 members and another Councilor for each additional 250 members. The Secretary and Treasurer would be elected from the Council.

The Council further recommended that the House consider returning to the old formula of one Delegate per 50 members plus an additional delegate for every 100 members or major fraction thereof.

The Council adopted a report of the Commission on Medical Economics which recommended that the MSMA endorsement of the Medicaid program be withdrawn. A resolution to this effect will be submitted to the House of Delegates for the November Interim Session.

A resolution will also be prepared which criticizes the recent enforcement of a "hold harmless" clause by Kansas City Blue Shield.

The Council accepted a recommendation of the Commission to notify the new Socioeconomic Committee to formulate plans and to report back to the Commission.

In other actions, the Council:

- Approved submission of a resolution on cost effectiveness to the House of Delegates at Interim Session.
- Approved the granting of a new charter to the St. Louis Metropolitan Medical Society.
- Directed the Legislative Committee to prepare a "delegation amendment" to the Medical Practice Act for presentation to the Council and Legislature.
- Authorized staff to proceed as far as necessary to protest the Chiropractic rule changes on "adjunctive therapy."
- Approved MSMA's intervention in the Smith v. Courter punitive damages case.
- Approved CME certification for the SEMO Foundation, Doctors Hospital in Poplar Bluff, Midwest Regional Hospital in Columbia and the Boone County Medical Society.
- Invited the Auxiliary to share in the presentation of AMA-ERF checks during the Annual Session since the Auxiliary plays a major role in the contributions.
- Directed staff to furnish copies of AMA policy on second opinions to all insurance companies.
- Approved the appointment of Dr. Charles Bentlage, of Joplin, to the Editorial Board of MISSOURI MEDICINE.
- Appointed a Computer Study Committee consisting of Drs. Richard Bradley, John Martin, James Stokes and George Ladyman.
- Appointed a Committee of Member Benefits consisting of Drs. James Stokes, Richard Bradley and John Martin.
- Approved continuation of the SAMA-MECO program.
- Approved MSMA staffing of the Missouri Allergy Association.
- Reported that the Medical-Nursing Liaison Committee will meet again in January.

## Cape Girardeau plans activities for Interim Session

The Cape Girardeau County Area Medical Society has planned special social activities and entertainment for the officers, delegates and their spouses attending the MSMA Interim Session, Saturday and Sunday, November 4-5, 1978.

The Cape Girardeau Auxiliary has arranged for the spouses a Saturday afternoon tour of some of the more interesting of the town's homes. The guests will be treated to a wine and cheese party at the last home on the tour.

The Auxiliary will provide transportation for all spouses who join the tour, but advance notice is requested for those who want to attend. Please make reservations before October 25 or as soon as possible for the home tour. Contact: *Mr. Lee G. Cochran, Cape Girardeau County Area Medical Society, Inc., Suite 320, H & H Building, Cape Girardeau, MO 64701.*

On Saturday evening, the medical society is hosting a dutch treat buffet dinner for physicians and their spouses. A cash bar will open at 6:30 p.m. and the banquet room at 7 p.m.

The Russ David Orchestra from St. Louis will provide music for dinner and dancing from 7-11 p.m.

## MSMA becomes involved in professional liability case

The Missouri State Medical Association has become involved in a recent appellate court professional liability decision.

In the case of Smith v. Courter, the trial court jury returned a verdict of $50,000 actual damages for negligence and awarded $100,000 to the plaintiff for punitive damages. This decision was upheld by the Kansas City Court of Appeals.

The plaintiff was permitted recovery because the conduct of the defendant "showed complete indifference to or conscious disregard for the safety of others."

It was the feeling of the Association that if this quantum of proof is held to make a submissible case on punitive damages, it would seem that many negligence actions will support a submission of punitive damages. In the past, awards of punitive damages have required proof of malice, willful or wanton misconduct or a reckless disregard of consequences and are infrequent in suits against physicians.

The MSMA filed two motions with the Missouri Supreme Court. The first motion was to transfer the case to the Missouri Supreme Court. The second was to allow the Association to intervene in the case as "a friend of the court."

The Court sustained both motions. Briefs will be filed by the MSMA in October and the case will probably be argued in January.

## Second opinion program underway

The Department of Health, Education and Welfare's second opinion program is now being implemented in Missouri.

In Western Missouri, a resident calling the national hot-line will be given the telephone number of Blue Shield of Kansas City. The inquirer will be referred to the appropriate county medical society who will then refer to the caller the names of several physicians.

If the caller prefers an osteopathic physician, he/she will be given the number of the Missouri Association of Osteopathic Physicians and Surgeons. In all other instances, Blue Shield will contact several physicians who are willing to render a second opinion and refer their names to the caller.

General American Life Insurance Company has agreed to be the list developer and list holder for eastern Missouri, but HEW will also be working with the St. Louis Medical Society and the Missouri Association of Osteopathic Physicians and Surgeons.

## Dr. David N. Kerr dies

David N. Kerr, M.D., a past president of the Missouri State Medical Association, died on Sept. 30, 1978, at his home in University City.

Dr. Kerr served as President of the MSMA in 1968-69. He also had been president of the St. Louis Society of Internal Medicine, the St. Louis Medical Society, the Barnes Hospital staff and the Mount St. Rose Hospital staff.

Dr. Kerr, an internist, had practiced in St. Louis since 1939. He was a graduate of the University of Colorado and received his medical degree from Washington University in 1916.

Dr. Kerr leaves a daughter, Mrs. Martha Cunningham of Bronxville, N.Y., and two sons, John Kerr of University City and Peter Kerr of Festus.

## Doug Viehland joins staff of MSMA

Douglas G. Viehland has recently joined the staff of the Missouri State Medical Association as the Director of Governmental Relations. Doug succeeds John Kuebler, who has joined the Jefferson City law firm of Goller, Hedrick and Lake.

Doug, 26, received his B.A. in political science from the University of Missouri-Columbia in 1974 and his M.Ed. in academic administration in 1977.

For the past three years, Doug has been involved in legislative activities. He served as the registered lobbyist and district sales manager for American Garelli, a major moped importer. While working on his M.Ed., Doug served as Executive Director of Associated Students of the University of Missouri, an organization which advocates students' needs before the state and federal branches of government.

Doug will deal primarily with government agencies. He will also assist in legislative areas and work with the Commission on Medical Economics and the Commission on Medical-Legal Affairs.

## Dr. Stelmach is new AAFP President

W. Jack Stelmach, M.D., Kansas City, was installed as president of the American Academy of Family Physicians at their recent annual meeting in San Francisco.

Dr. Stelmach is director of the Goppert Family Care Center at Baptist Memorial Hospital in Kansas City.

During his inaugural speech, Dr. Stelmach urged physicians to tell their patients the truth. *"While family physicians must continue to assure the people that they are working toward optimal health care,"* he said, *"we must make it clear that we, as physicians, cannot do it without their help. We must impress upon them the importance of their rightful role in the health care team."*

Dr. Stelmach asked the family physicians *"to go home and one-on-one — doctor, patient — build the dialogue that will create a partnership in health."*

## Victory won in case against HEW

The American Medical Association and the Florida Medical Association won a victory last month in their effort to prevent the federal government from releasing the names of physicians who received Medicare payments in 1977.

U.S. District Court Judge Charles Scott denied Dept. of Health, Education, and Welfare's request to appeal Scott's "ancillary" injunction to a higher court.

Government attorneys had stated in their request for an appeal hearing that Judge Scott had no authority in the case and had not adhered to procedural regulations when he issued his ancillary injunction.

In his response to HEW attorneys, the judge said he would not be "stampeded" into a decision in this case. "Although the government insists that the information which the HEW Secretary desires to disclose diminishes in value during the time that he is restrained from doing so, the Court is not convinced."

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mcg estrogen
50
mcg estrogen

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§Serious as well as minor side effects have been reported with the use of oral contraceptives. These include thromboembolic disease. The physician should remain alert to the earliest manifestations of any symptoms of serious disease and discontinue oral contraceptive therapy when appropriate. The physician should be fully aware of the complete Prescribing Information for this product.

See the complete Prescribing Information for this product,
a summary of which is on the next page.

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**INDICATION: CONTRACEPTION.** The pregnancy rate in women using conventional combination oral contraceptives (containing 35 mcg or more of ethinyl estradiol or 50 mcg or more of mestranol) is generally reported as less than one pregnancy per 100 woman-years of use. Slightly higher rates (somewhat more than one pregnancy per 100 woman-years of use) are reported for some combination products containing 35 mcg or less of ethinyl estradiol, and rates on the order of three pregnancies per 100 woman-years are reported for the progestogen-only oral contraceptives. Table 1 gives ranges of pregnancy rates reported in the literature for other means of contraception. The efficacy of these means of contraception (except the IUD) depends upon the degree of adherence to the method.
**Table 1: Pregnancies Per 100 Women-Years.** IUD, less than 1-6; Diaphragm with spermicidal product (creams or jellies), 2-20; Condom, 3-36; Aerosol foams, 2-29; Jellies and creams, 4-36; Periodic abstinence (rhythm) all types, less than 1-47; 1. Calendar method, 14-47; 2. Temperature method, 1-20; 3. Temperature method—intercourse only in postovulatory phase, less than 1-7; 4. Mucus method, 1-25; No contraception, 60-80. **DOSE-RELATED RISK OF THROMBOEMBOLISM FROM ORAL CONTRACEPTIVES**: Two studies have shown a positive association between the dose of estrogens in oral contraceptives and the risk of thromboembolism. For this reason, it is prudent and in keeping with good principles of therapeutics to minimize exposure to estrogen. The oral contraceptive product prescribed for any given patient should be that product which contains the least amount of estrogen that is compatible with an acceptable pregnancy rate and patient acceptance. It is recommended that new acceptors of oral contraceptives be started on preparations containing .05 mg or less of estrogen. **CONTRAINDICATIONS:** Oral contraceptives should not be used in women with any of the following conditions: 1. Thrombophlebitis or thromboembolic disorders. 2. A past history of deep vein thrombophlebitis or thromboembolic disorders. 3. Cerebral vascular or coronary artery disease. 4. Known or suspected carcinoma of the breast. 5. Known or suspected estrogen-dependent neoplasia. 6. Undiagnosed, abnormal genital bleeding. 7. Known or suspected pregnancy (see WARNINGS, No. 5).

## WARNINGS

**Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. This risk increases with age and with heavy smoking (15 or more cigarettes per day) and is quite marked in women over 35 years of age. Women who use oral contraceptives should be strongly advised not to smoke.**
**The use of oral contraceptives is associated with increased risk of several serious conditions including thromboembolism, stroke, myocardial infarction, hepatic adenoma, gallbladder disease, hypertension. Practitioners prescribing oral contraceptives should be familiar with the following information relating to these risks.**

1. THROMBOEMBOLIC DISORDERS AND OTHER VASCULAR PROBLEMS. An increased risk of thromboembolic and thrombotic disease associated with the use of oral contraceptives is well established. Four principal studies in Great Britain and three in the United States have demonstrated an increased risk of fatal and nonfatal venous thromboembolism and stroke, both hemorrhagic and thrombotic. These studies estimate that users of oral contraceptives are 4 to 11 times more likely than nonusers to develop these diseases without evident cause. Overall excess mortality due to pulmonary embolism or stroke is on the order of 1.0 to 3.5 deaths annually per 100,000 users and increases with age. **CEREBROVASCULAR DISORDERS:** In a collaborative American study of cerebrovascular disorders in women with and without predisposing causes, it was estimated that the risk of hemorrhagic stroke was 2.0 times greater in users than in nonusers and the risk of thrombotic stroke was 4.0 to 9.5 times greater in users than in nonusers.
**MYOCARDIAL INFARCTION**: An increased risk of myocardial infarction associated with the use of oral contraceptives has been reported confirming a previously suspected association. These studies, conducted in the United Kingdom, found, as expected, that the greater the number of underlying risk factors for coronary artery disease (cigarette smoking, hypertension, hypercholesterolemia, obesity, diabetes, history of preeclamptic toxemia), the higher the risk of developing myocardial infarction, regardless of whether the patient was an oral contraceptive user or not. Oral contraceptives, however, were found to be a clear additional risk factor. The annual excess case rate (increased risk) of myocardial infarction (fatal and nonfatal) in oral contraceptive users was estimated to be approximately 7 cases per 100,000 women users in the 30-39 age group and 67 cases per 100,000 women users in the 40-44 age group. In terms of relative risk, it has been estimated that oral contraceptive users who do not smoke (smoking is considered a major predisposing condition to myocardial infarction) are about twice as likely to have a fatal myocardial infarction as nonusers who do not smoke. Oral contraceptive users who are also smokers have about a 5-fold increased risk of fatal infarction compared to users who do not smoke, but about a 10-to 12-fold increased risk compared to nonusers who do not smoke. Furthermore, the amount of smoking is also an important factor. In determining the importance of these relative risks, however, the baseline rates for various age groups must be given serious consideration. The importance of other predisposing conditions mentioned above in determining relative and absolute risks has not as yet been quantified; it is quite likely that the same synergistic action exists, but perhaps to a lesser extent. **Risk of Dose**: In an analysis of data derived from several national adverse reaction reporting systems, British investigators concluded that the risk of thromboembolism including coronary thrombosis is directly related to the dose of estrogen used in oral contraceptives. Preparations containing 100 mcg or more of estrogen were associated with a higher risk of thromboembolism than those containing 50-80 mcg of estrogen. Their analysis did suggest, however, that the quantity of estrogen may not be the sole factor involved. This finding has been confirmed in the United States. Careful epidemiological studies to determine the degree of thromboembolic risk associated with progestogen-only oral contraceptives have not been performed. Cases of thromboembolic disease have been reported in women using these products, and they should not be presumed to be free of excess risk. The risk of thromboembolic and thrombotic disorders, in both users and nonusers of oral contraceptives, increases with age. Oral contraceptives are, however, an independent risk factor for these events. **ESTIMATE OF EXCESS MORTALITY FROM CIRCULATORY DISEASES:** A large prospective study carried out in the United Kingdom estimated the mortality rate per 100,000 women per year from diseases of the circulatory system for users and nonusers of oral contraceptives according to age, smoking habits, and duration of use. The overall excess death rate annually from circulatory diseases for oral contraceptive users was estimated to be 20 per 100,000 (ages 15-34—5/100,000; ages 35-44—33/100,000; ages 45-49—140/100,000), the risk being concentrated in older women, in those with a long duration of use, and in cigarette smokers. It was not possible, however, to examine the interrelationships of age, smoking, and duration of use, nor to compare the effects of continuous versus intermittent use. Although the study showed a 10-fold increase in death due to circulatory diseases in users for five or more years, all of these deaths occurred in women 35 or older. Until larger numbers of women under 35 with continuous use for five or more years are available, it is not possible to assess the magnitude of the relative risk for this younger age group. This study reports that the increased risk of circulatory diseases may persist after the pill is discontinued. Another study published at the same time confirms a previously reported increase of mortality in pill users from cardiovascular disease. The available data from a variety of sources have been analyzed to estimate the risk of death associated with various methods of contraception. The estimates of risk of death for each method include the combined risk of the contraceptive method (e.g., thromboembolic and thrombotic disease in the case of oral contraceptives) plus the risk attributable to pregnancy or abortion in the event of method failure. This latter risk varies with the effectiveness of the contraceptive method. The findings of this analysis are shown in Figure 1 below. The study concluded that the mortality associated with all methods of birth control is low and below that associated with childbirth, with the exception of oral contraceptives in women over 40 who smoke. (The rates given for pill only/smokers for each age group are for smokers as a class. For "heavy" smokers [more than 15 cigarettes a day], the rates given would be about double; for "light" smokers [less than 15 cigarettes a day], about 50 percent.) The mortality associated with oral contraceptive use in nonsmokers over 40 is higher than with any other method of contraception in that age group. The lowest mortality is associated with the condom or diaphragm backed up by early abortion. The risk of thromboembolic and thrombotic disease associated with oral contraceptives increases with age after approximately age 30 and, for myocardial infarction, is further increased by hypertension, hypercholesterolemia, obesity, diabetes, or history of preeclamptic toxemia and especially by cigarette smoking. The risk of myocardial infarction in oral contraceptive users is substantially increased in women age 40 and over, especially those with other risk factors. The use of oral contraceptives in women in this age group is not recommended. Based on the data currently available, the following chart gives a gross estimate of the risk of death from circulatory disorders associated with the use of oral contraceptives:

**SMOKING HABITS AND OTHER PREDISPOSING CONDITIONS—RISK ASSOCIATED WITH USE OF ORAL CONTRACEPTIVES**

| Age | Below 30 | 30-39 | 40+ | |
|---|---|---|---|---|
| Heavy smokers | C | B | A | A—Use associated with very high risk. |
| Light smokers | D | C | B | B—Use associated with high risk. |
| Nonsmokers (no predisposing conditions) | D | C,D | C | C—Use associated with moderate risk |
| Nonsmokers (other predisposing conditions) | C | C,B | B,A | D—Use associated with low risk. |

The physician and the patient should be alert to the earliest manifestations of thromboembolic and thrombotic disorders (e.g., thrombophlebitis, pulmonary embolism, cerebrovascular insufficiency, coronary occlusion, retinal thrombosis, and mesenteric thrombosis). Should any of these occur or be suspected, the drug should be discontinued immediately. A four- to six-fold increased risk of postsurgery thromboembolic complications has been reported in oral contraceptive users. If feasible, oral contraceptives should be discontinued at least four weeks before surgery of a type associated with an increased risk of thromboembolism or prolonged immobilization. 2. OCULAR LESIONS. There have been reports of neuro-ocular lesions such as optic neuritis or retinal thrombosis associated with the use of oral contraceptives. Discontinue oral contraceptive medication if there is unexplained, sudden or gradual, partial or complete loss of vision; onset of proptosis or diplopia; papilledema; or retinal vascular lesions and institute appropriate diagnostic and therapeutic measures. 3. CARCINOMA. Long-term continuous administration of either natural or synthetic estrogen in certain animal species increases the frequency of carcinoma of the breast, cervix, vagina, and liver. Certain synthetic progestogens, none currently contained in oral contraceptives, have been noted to increase the incidence of mammary nodules, benign and malignant, in dogs. In humans, three case control studies have reported an increased risk of endometrial carcinoma associated with the prolonged use of exogenous estrogen in postmenopausal women. One publication reported on the first 21 cases submitted by physicians to a registry of cases of adenocarcinoma of the endometrium in women under 40 on oral contraceptives. Of the cases found in women without predisposing risk factors for adenocarcinoma of the endometrium (e.g., irregular bleeding at the time oral contraceptives were first given, polycystic ovaries), nearly all occurred in women who had used a sequential oral contraceptive. These products are no longer marketed. No evidence has been reported suggesting an increased risk of endometrial cancer in users of conventional combination or progestogen-only oral contraceptives. Several studies have found no increases in breast cancer in women taking oral contraceptives or estrogens. One study, however, while also noting no overall increased risk of breast cancer in women treated with oral contraceptives, found an excess risk in the subgroups of oral contraceptive users with documented benign breast disease. A reduced occurrence of benign breast tumors in users of oral contraceptives has been well-documented. In summary, there is at present no confirmed evidence from human studies of an increased risk of cancer associated with oral contraceptives. Close clinical surveillance of all women taking oral contraceptives is, nevertheless, essential. In all cases of undiagnosed persistent or recurrent abnormal history of breast cancer or who have breast nodules, fibrocystic disease or abnormal mammograms should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception.

Figure 1. Estimated annual number of deaths associated with control of fertility and no control per 100,000 nonsterile women, by regimen of control and age of woman.

| | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 |
|---|---|---|---|---|---|---|
| No method | 5.5 | 5.2 | 7.1 | 14.0 | 19.3 | 21.9 |
| Abortion only | 2.3 | 2.5 | 2.5 | 5.2 | 9.8 | 6.6 |
| Pill only-nonsmokers | 1.3 | 1.4 | 1.4 | 2.2 | 4.5 | 3.1 |
| Pill only-smokers | 1.5 | 1.6 | 1.6 | 10.8 | 13.4 | 58.9 |
| IUDs only | 1.1 | 1.2 | 1.2 | 1.4 | 1.6 | 1.4 |
| Traditional contraception only | 1.1 | 1.4 | 1.9 | 3.7 | 4.7 | 4.0 |
| Traditional contraception and abortion | 0.3 | 0.4 | 0.4 | 0.8 | 1.4 | 0.8 |

4. HEPATIC TUMORS. Benign hepatic adenomas have been found to be associated with the use of oral contraceptives. One study showed that oral contraceptive formulations with high hormonal potency were associated with a higher risk than lower potency formulations. Although benign, hepatic adenomas may rupture and may cause death through intra-abdominal hemorrhage. This has been reported in short-term as well as long-term users of oral contraceptives. Two studies relate risk with duration of use of the contraceptive, the risk being much greater after four or more years of oral contraceptive use. While hepatic adenoma is a rare lesion, it should be considered in women presenting abdominal pain and tenderness, abdominal mass or shock. A few cases of hepatocellular carcinoma have been reported in women taking oral contraceptives. The relationship of these drugs to this type of malignancy is not known at this time. 5. USE IN OR IMMEDIATELY PRECEDING PREGNANCY, BIRTH DEFECTS IN OFFSPRING, AND MALIGNANCY IN FEMALE OFFSPRING. The use of female sex hormones—both estrogenic and progestational agents—during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a nonsteroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated to be on the order of 1 to 4 in 1000 exposures. Although there is no evidence at the present time that oral contraceptives further enhance the risk of developing this type of malignancy, such patients should be monitored with particular care if they elect to use oral contraceptives instead of other methods of contraception. Furthermore, a high percentage of such exposed women (from 30 to 90%) have been found to have epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether this condition is a precursor of vaginal malignancy. Male children so exposed may develop abnormalities of the urogenital tract. Although similar data are not available with the use of other estrogens, it cannot be presumed that they would not induce similar changes. An increased risk of congenital anomalies, including heart defects and limb defects, has been reported with the use of sex hormones, including oral contraceptives, in pregnancy. One case control study has estimated a 4.7-fold increase in risk of limb-reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormonal withdrawal tests for pregnancy or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb-reduction defects in exposed fetuses is somewhat less than one in 1,000 live births. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well-controlled studies that progestogens are effective for these uses. There is some evidence that triploidy and possibly other types of polyploidy are increased among abortuses from women who become pregnant soon after ceasing oral contraceptives. Embryos with these anomalies are virtually always aborted spontaneously. Whether there is an overall increase in spontaneous abortion of pregnancies conceived soon after stopping oral contraceptives is unknown. Pregnancy should be ruled out before initiating or continuing the contraceptive regimen. Pregnancy should always be considered if withdrawal bleeding does not occur. If pregnancy is confirmed, the patient should be apprised of the potential risks to the fetus and the advisability of continuation of the pregnancy should be discussed in the light of these risks. It is also recommended that women who discontinue oral contraceptives with the intent of becoming pregnant use an alternate form of contraception for a period of time before attempting to conceive. Many clinicians recommend three months although no precise information is available on which to base this recommendation. The administration of progestogen-only or progestogen-estrogen combinations to induce withdrawal bleeding should not be used as a test of pregnancy. 6. GALLBLADDER DISEASE. Studies report an increased risk of surgically confirmed gallbladder disease in users of oral contraceptives and estrogens. In one study, an increased risk appeared after two years of use and doubled after four or five years of use. In one of the other studies, an increased risk was apparent between six and twelve months of use. 7. CARBOHYDRATE AND LIPID METABOLIC EFFECTS. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. For this reason, prediabetic and diabetic patients should be carefully observed while receiving oral contraceptives. An increase in triglycerides and total phospholipids has been observed in patients receiving oral contraceptives. 8. ELEVATED BLOOD PRESSURE. An increase in blood pressure has been reported in patients receiving oral contraceptives. In some women hypertension may occur within a few months of beginning oral contraceptive use. In the first year of use, the prevalence of women with hypertension is low in users and may be no higher than that of a comparable group of nonusers. The prevalence in users increases, however, with longer exposure, and in the fifth year of use is two and a half to three times the reported prevalence in the first year. Age is also strongly correlated with the development of hypertension in oral contraceptive users. Women who previously have had hypertension during pregnancy may be more likely to develop elevation of blood pressure when given oral contraceptives. Hypertension that develops as a result of taking oral contraceptives usually returns to normal after discontinuing the drug. 9. HEADACHE. The onset or exacerbation of migraine or development of headache of a new pattern which is recurrent, persistent, or severe, requires discontinuation of oral contraceptives and evaluation of the cause. 10. BLEEDING IRREGULARITIES. Breakthrough bleeding, spotting, and amenorrhea are frequent reasons for patients discontinuing oral contraceptives. In breakthrough bleeding, as in all cases of irregular bleeding from the vagina, nonfunctional causes should be borne in mind. In undiagnosed persistent or recurrent abnormal bleeding from the vagina, adequate diagnostic measures are indicated to rule out pregnancy or malignancy. If pathology has been excluded, time or a change to another formulation may solve the problem. Changing to an oral contraceptive with a higher estrogen content, while potentially useful in minimizing menstrual irregularity, should be done only if necessary since this may increase the risk of thromboembolic disease. Women with a past history of oligomenorrhea or secondary amenorrhea or young women without regular cycles may have a tendency to remain anovulatory or to become amenorrheic after discontinuation of oral contraceptives. Women with these preexisting problems should be advised of this possibility and encouraged to use other contraceptive methods. Postuse anovulation, possibly prolonged, may also occur in women without previous irregularities. 11. ECTOPIC PREGNANCY. Ectopic as well as intrauterine pregnancy may occur in contraceptive failures. 12. BREAST FEEDING. Oral contraceptives given in the postpartum period may interfere with lactation. There may be a decrease in the quantity and quality of the breast milk. Furthermore, a small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The effects, if any, on the breast-fed child have not been determined. If feasible, the use of oral contraceptives should be deferred until the infant has been weaned. **PRECAUTIONS**: **General:** 1. A complete medical and family history should be taken prior to the initiation of oral contraceptives. The pretreatment and periodic physical examinations should include special reference to blood pressure, breasts, abdomen and pelvic organs, including Papanicolaou smear and relevant laboratory tests. As a general rule, oral contraceptives should not be prescribed for longer than one year without another physical examination being performed. 2. Under the influence of estrogen-progestogen preparations, preexisting uterine leiomyomata may increase in size. 3. Patients with a history of psychic depression should be carefully observed and the drug discontinued if depression recurs to a serious degree. Patients becoming significantly depressed while taking oral contraceptives should stop the medication and use an alternate method of contraception in an attempt to determine whether the symptom is drug-related. 4. Oral contraceptives may cause some degree of fluid retention. They should be prescribed with caution, and only with careful monitoring, in patients with conditions which might be aggravated by fluid retention, such as convulsive disorders, migraine syndrome, asthma, or cardiac or renal insufficiency. 5. Patients with a past history of jaundice during pregnancy have an increased risk of recurrence of jaundice while receiving oral contraceptive therapy. If jaundice develops in any patient receiving such drugs, the medication should be discontinued. 6. Steroid hormones may be poorly metabolized in patients with impaired liver function and should be administered with caution in such patients. 7. Oral contraceptive users may have disturbances in normal tryptophan metabolism which may result in a relative pyridoxine deficiency. 8. Serum folate levels may be depressed by oral contraceptive therapy. Since the pregnant woman is predisposed to the development of folate deficiency and the incidence of folate deficiency increases with increasing gestation, it is possible that if a woman becomes pregnant shortly after stopping oral contraceptives, she may have a greater chance of developing folate deficiency and complications attributed to this deficiency. 9. The pathologist should be advised of oral contraceptive therapy when relevant specimens are submitted. 10. Certain endocrine and liver function tests and blood components may be affected by estrogen-containing oral contraceptives: a. Increased sulfobromophthalein retention. b. Increased prothrombin and factors VII, VIII, IX, and X; decreased antithrombin 3; increased norepinephrine-induced platelet aggregability. c. Increased thyroid-binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by protein-bound iodine (PBI), T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered. d. Decreased pregnanediol excretion. e. Reduced response to metyrapone test. **INFORMATION FOR THE PATIENT: (See Patient Package Insert). DRUG INTERACTIONS**: Reduced efficacy and increased incidence of breakthrough bleeding have been associated with concomitant use of rifampin. A similar association has been suggested with barbiturates, phenylbutazone, phenytoin sodium, and ampicillin. **CARCINOGENESIS, PREGNANCY, NURSING MOTHERS: See CONTRAINDICATIONS and WARNINGS. ADVERSE REACTIONS**: An increased risk of the following serious adverse reactions has been associated with the use of oral contraceptives (see WARNINGS): Thrombophlebitis. Pulmonary embolism. Coronary thrombosis. Cerebral thrombosis. Cerebral hemorrhage. Hypertension. Gallbladder disease. Liver tumors. Congenital anomalies. There is evidence of an association between the following conditions and the use of oral contraceptives, although additional confirmatory studies are needed: Mesenteric thrombosis. Neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis. The following adverse reactions have been reported in patients receiving oral contraceptives and are believed to be drug-related. Nausea, usually the most common adverse reaction. Vomiting, occurs in approximately 10% or less of patients during the first cycle. Other reactions, as a general rule, are seen much less frequently or only occasionally. Gastrointestinal symptoms (such as abdominal cramps and bloating). Breakthrough bleeding. Spotting. Change in menstrual flow. Dysmenorrhea. Amenorrhea during and after treatment. Temporary infertility after discontinuance of treatment. Edema. Chloasma or melasma which may persist. Breast changes: tenderness, enlargement, and secretion. Change in weight (increase or decrease). Change in cervical erosion and cervical secretion. Possible diminution in lactation when given immediately postpartum. Cholestatic jaundice. Migraine. Increase in size of uterine leiomyomata. Rash (allergic). Mental depression. Reduced tolerance to carbohydrates. Vaginal candidiasis. Change in corneal curvature (steepening). Intolerance to contact lenses. The following adverse reactions have been reported in users of oral contraceptives, and the association has been neither confirmed nor refuted: Premenstrual-like syndrome. Cataracts. Changes in libido. Chorea. Changes in appetite. Cystitis-like syndrome. Headache. Nervousness. Dizziness. Hirsutism. Loss of scalp hair. Erythema multiforme. Erythema nodosum. Hemorrhagic eruption. Vaginitis. Porphyria. Impaired renal function. (ORTHO-NOVUM 1/50□21 and ORTHO-NOVUM 1/50□28 contain tartrazine. Allergic reactions have been reported with the ingestion of this dye in some patients.) **ACUTE OVERDOSE**: Serious ill effects have not been reported following acute ingestion of large doses of oral contraceptives by young children. Overdosage may cause nausea, and withdrawal bleeding may occur in females.

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**HOSPITAL AND SURGICAL SUPPLIES—SINCE 1884**

Photo-Comment by James W. Clawson, M.D., Springfield

The Wash., D. C. laundry
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# Editor's Corner

## A CLOSE ENCOUNTER OF ANOTHER KIND

Until that time, the day had been routine. But things abruptly changed! She sat on the end of the examining table — great, rimmed glasses poorly concealing a chill expression. I remember thinking the glasses made her look like a rather attractive, nesting owl.

"Good morning," I said (I've learned to stop there because I've never learned how to pronounce "Ms"). "What may I do for you?"

"You may tell me your credentials, doctor."

Did you ever get hit with something like that, not too long after breakfast?

"Credentials?"

"Yes, I am traveling. Your name was given to me yesterday by your medical society office."

By this time, the shock had dissipated.

"What you really want to know, then, is my competence?"

"Correct," she replied.

"Would you like a résumé of my achievements before, or after, you were born," I asked.

"I am quite sure you know what I mean."

"Yes, I believe I understand, perhaps better than you do, and I might surprise you by saying that I find some sympathy for your point of view. But you have no reason to be mad at me. I don't mind helping you. I do mind being put on the defensive. Let's get on with it."

At this point, let me explain that I am not usually this articulate and I do not ordinarily get zeroed in this quickly. But I sensed this one coming. Amazingly, my patient-adversary seemed disarmed. We got down to the basics of why she came to the office. The trouble was easily disposed of. We parted quite amicably.

She even smiled prettily and said, "I'm sorry."

"I'm not," I confessed. "This has made my morning. But, for your sake, why don't you go about it a little differently next time. I have really found the world to be quite a satisfactory place."

"But you are not a woman," she said.

"God save us," I replied, "at least we have finally found something we can agree on. I am, by no means, a woman."

"It's different," she replied.

"I'm quite sure I will never know."

She left pleasantly. I still don't know why she was mad. It really must be different.

Wilfred E. Wooldridge, M.D.

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Stanley Dudrick, M.D.
Professor of Surgery
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Houston, Texas
"Guest Moderator"

"NUTRITIONAL MANAGEMENT OF GASTROINTESTINAL DISORDERS"

Donald Kaminski, M.D.
Associate Professor of Surgery
St. Louis University, St. Louis, Missouri

"ENTERAL AND ORAL ALIMENTATION IN BURN PATIENTS"

Vatche Ayvasian, M.D.
Assistant Chairman, Department of Surgery
St. John's Mercy Medical Center
St. Louis, Missouri

"NUTRITIONAL CONTROL OF PATIENTS IN ACUTE RENAL FAILURE"

Edward Etheredge, M.D.
Assistant Professor of Surgery
Washington University, St. Louis, Missouri

Wednesday, Nov. 29, 1978
5:30 P.M.

St. Louis Medical Society Auditorium
3839 Lindell Boulevard
St. Louis, Missouri

**Librax®**

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

**Please consult complete prescribing information, a summary of which follows:**

**Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma; prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**IN A STATEMENT** to the press issued shortly after HEW formally announced the start of its surgical second-opinion program, AMA Executive Vice-president James H. Sammons, M.D., warned that the program "promises to increase utilization of physician services as Medicare and Medicaid patients across the country are urged to seek a second-opinion before all nonemergency surgery." Dr. Sammons refuted HEW's claim that its national second-opinion program would be cost reducing. Short-term results of several experimental second-opinion programs "have not provided clear evidence," he said, "that a national program of this type will either improve the quality of care or reduce health cost."

**FOUR STATE** health legislation regional meetings have been sponsored by the AMA during the past two years. The meetings examine current issues and developments in state and federal health legislation and their impact upon medical practice. The fifth state health legislation regional meeting will be held on January 4-6 in Ft. Lauderdale, Fla.

**A PROPOSAL** to regulate the composition of boards and committees of carriers, intermediaries and fiscal agents participating in Medicare and Medicaid should be withdrawn, the AMA told HEW. The proposal, the Association pointed out, "is based on the false notion that by the mere fact of being a member of the medical profession one would be motivated by self-interest to oppose cost effective health care." HEW said it was concerned that the influence of persons with a financial interest in health care delivery "may" compromise the carriers and agents.

**THREE NEW** self-study video clinicals are being developed by the AMA for introduction late this year or early next year. The programs combine two-to-four hours of televised viewing with reading material and three self assessment tests. The new programs, "Neurological Examination," "The Multiply Traumatized Patient" and "The Unconscious Patient," will be available for use on any video type player in the home or in a hospital or clinic setting.

**THE 32ND NATIONAL** Conference on Rural Health will be held on April 18-21, in St. Paul, Minn. Twelve health and medically oriented organizations have joined with the AMA to cosponsor the meeting.

**TWO STUDIES** should be made before the *Guide to Drug Prices* becomes a permanent federal publication, the AMA said of HEW's proposed drug price catalog. When announcing plans for the *Guide*, HEW Seretary Joseph Califano said it "should allow doctors and pharmacists to take costs into account when prescribing and ordering prescription drugs." The AMA recommended a study to determine the correlation of pharmacy acquisition costs with retail prices and the relationship of pharmacy location and acquisition costs. It also recommended that criteria be established and a study conducted to determine the effectiveness of the *Guide* in reducing drug costs consistent with quality care.

**THE AMA** Education and Research Foundation will fund and cosponsor four student research forums next year. The AMA-ERF Board of Directors granted $44,162 to the University of Texas Medical Branch in Galveston to finance three regional forums in Miami, Ann Arbor, Mich., and Carmel, Calif., and a national forum in Galveston. The forums have been held in the past to encourage research among medical students.

**BASED ON FIGURES IN** *Profile of Medical Practice 1978*, the average U. S. physician in office practice in 1976 was 46 years of age, worked 52.2 hours per week and averaged $59,544 in income. The new seventh edition of the book also shows that the rate of increase in physician's fees has declined since 1975 to 9.2%, as measured by the consumer price index. Information in the book is based in large part on results from the 11th Periodic Survey of Physicians, an AMA study conducted last year in which a cross-section of physicians were asked questions regarding office finances, working hours and other aspects of medical management. *Profile* is a companion book to the AMA's *Socioeconomic Issues of Health 1978*. Copies of the books are $5 each. The set sells for $8.50. Write AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

# Malpractice Panel Review —Is It Working?

By
JOHN M. KILROY, J.D.,
Kansas City

A SYSTEM FOR SCREENING PANEL REVIEW of medical malpractice claims was adopted by the legislatures of most of the states from 1975 to 1977 as an alternative to resolving those matters by litigation.[1] There are some variations in the panel procedures from state to state, including the composition and the number serving on the panels, how they are selected and whether their findings may be admitted into evidence in a subsequent trial in court if the parties do not accept the panel findings.

None of the panel review procedures requires the parties to accept the decision of the panel and they may reject the findings and then proceed to a jury trial. If the panel procedures are effective, they can theoretically reduce the number of cases brought into court, be a less expensive way of resolving these disputes and, quite possibly, stabilize insurance rates for health care providers. On the other hand, if the panel process does not achieve those ends, it may prolong the resolution of the claims and increase the cost of eventual disposition.

Missouri legislation creating Professional Liability Review Boards was enacted on June 16, 1976. It became effective on Jan. 1, 1977 and the first board was authorized to be appointed on July 1, 1977, all under the supervision of the Attorney General of Missouri.[2] The panels are composed of two attorneys, two professional health care providers, a lay representative and a nonvoting circuit judge who presides. Because this procedure was new, there were some understandable delays in the beginning in creating the panels and in setting hearings for the large number of claims filed. Now that the organizational procedure has been in operation for some time, the hearings are being set much sooner after the claim has been filed.

It is too early to draw any valid conclusions as to whether the malpractice panels are serving as a viable alternative to litigation. However, from information taken from some of the closed files in the office of the attorney general and from contact with some of the attorneys engaged in these procedures, we might take a look at how effectively the panel review is functioning so far.

There were 409 claims for panel review filed against Missouri health care providers in 1977, and the vast majority were against more than one party. Thirteen panels held hearings in that six-month period in 1977. They found for the health care providers 11 times and for the claimant twice. During the first four months of 1978, there were 165 claims filed. If these filings continue at that pace, it appears that the claims filed in 1978 will equal or exceed the number filed last year.

Panel hearings in the first four months of 1978 have resulted in findings for the claimant four times and for the defendant 23 times. Damages assessed in those four awards ranged from $845 to $200,000. However, in May of 1978, one panel in the St. Louis area awarded $325,000 to a claimant, and one panel in Liberty awarded $500,000. In the cases reviewed thus far in both years, almost all of the panel decisions have been rejected.

While full and complete cases have been presented in some instances, it appears that little or no evidence was presented in many of the reviews heard so far. It would appear that in many cases, the attorneys were simply going through the motions because the new statutes require that they submit first to this review. In some instances, the attorneys offered no evidence and advised the panel members they did not wish to do so. In some, only a skeleton case, such as the proffer of hospital records or, possibly, the testimony of the claimant was adduced. A few of the judges appointed to preside at the panel hearing have taken the position that if the claimant does not put on evidence, there has been no compliance with the statute requiring panel review.

It should be noted that many of the findings for the defendant were probably because little or no evidence was given in support of the claim. How many of the results would have been the same if the claims had been fully presented is not known. It is probable that in those instances where no proof was offered, the claimant did not desire to reveal his evidence and fully intended to file a lawsuit anyhow, after the panel had made its findings.

While many panel hearings where no evidence was offered were held in the first few months, there now may be a trend to the contrary. It seems that in recent months, more claimants are putting on some evidence in support of their claims. This may be because the defense attorneys are now pleading as a defense in the lawsuits that follow that the claimant failed to comply with the provisions of the Missouri statute mandating the submission of the claim to a panel. Whether the appellate courts will consider that as a valid defense (when claimant failed to present evidence for the panel) is unknown.

A number of Missouri attorneys who have been involved in these proceedings, either as counsel for a party or as panel members, have expressed varying opinions on the effectiveness of the panel system. The diversity of views may reflect a lack of perception of what the real objective of the panel is and what it is intended to accomplish. Some attorneys state that the panel is doing what it is expected to do. The majority, however, have advised us that they feel this procedure is of no effect and some have referred to it as a "waste of time." Some of the concerns expressed by the attorneys contacted are the lack of continuity in hearings with different judges, the suggestion that the lay member is a weak link on the panel and some administrative rules or guidelines need to be set up. One attorney reported he has been called on ten panels and expressed increasing irritation at being called so often. Also, some physicians have expressed concern over being called, especially when little or no evidence is presented. Many urge that something must be done to "put teeth" into the procedure, to set some guidelines, to make panel findings admissible in evidence in trial or to make the claimants present evidence in those instances in which they are not doing so.

One attorney from Springfield advised that he had handled six panel hearings and about 50% of these resulted in some compromise disposition following the hearing. His general remarks were that the panels were achieving some success. Some additional support for this view is that as of late May, 1978, the attorney general's office reports a total of 300 files closed since the inception of the panel review system. Of those, 20 are reported as settled and 30 withdrawn, or 50 were disposed of out of 300.

*In this second article, the author presents a brief review of the system for screening panel review of medical malpractice claims and considers information regarding the effectiveness of the panel review function to date. Mr. Kilroy, who is in the private practice of law, is a frequent contributor to legal periodicals, a lecturer and has served as panelist for various legal and medical organizations. His first article about malpractice panel review was published in the January, 1977 issue of* MISSOURI MEDICINE.

A number of circuit court judges apparently have different ideas concerning the extent of their participation in the hearings and the manner in which those hearings are to be conducted. As a result, the parties can never be certain as to how the hearing will be conducted, what manner of proof or defense of the claim will be allowed or if the panel members will be permitted to ask questions of any witnesses called to testify or the attorneys representing the parties. This uncertainty stems from the fact that there are presently no explicit procedural guidelines for the circuit judge to follow. Therefore, each circuit judge makes his own determination about whether the hearings will be formal with all rules of evidence being applicable or whether they will be informal and allow all relevant evidence regardless of whether it would be admissible at trial.

Whether the panel review procedures are constitutional has been raised in many states. The appellate courts in some states have held the procedures constitutional while others have held them unconstitutional. It should be kept in mind that, in many instances, these decisions are based upon slightly different statutory provisions which created the panels.

It has been a foregone conclusion from the outset that the statutes creating the Missouri panel review might be challenged on constitutional grounds. This has now occurred from a case arising in St. Louis. There, a minor, Deborah Burns, sued the Cardinal Glennon Hospital, a pharmaceutical company and a physician for malpractice from an alleged overdose of amynophilline given for her asthma. The claimant had filed the requisite notice with the attorney general for panel review before filing her lawsuit, but the panel hearing had not been held. The defendants moved to dismiss the lawsuit for failure to complete the panel review.

The motions of the defendants to dismiss were overruled by the trial court, and the hospital sought a writ of prohibition against the circuit judge. That matter, after being fully briefed, was argued in the Supreme Court of Missouri in mid-May, 1978 and the decision has not yet been handed down. The constitutional questions raised in that case included a claimed denial of due process and equal protection under the Fourteenth Amendment of the United States Constitution and the Missouri Constitution. It is contended in that case that the panel review procedure discriminates against persons injured through medical malpractice by delaying their access to a court, infringing upon the claimants right to a jury trial and regulating only claims for medical malpractice.

The method most often urged by the health care providers to make malpractice panel review effective is to allow the panel findings to be admissible in evidence at a later trial. Because a jury would be very apt to follow the findings of the panel, this technique puts a big burden on the party who loses in the panel review to go forward with litigation. Under the statute in one state, the panel findings are not only admitted in trial, but are presumed correct. In a few states, if the panel finds that the claim was frivolous or that the claim was frivolously denied, then the panel or the court costs are to be borne by that party. New Jersey bars the attorney for the claimant from bringing suit if the panel does not find in the claimant's favor (although the claimant can still employ another attorney).

The Massachusetts system requires that if a plaintiff desires to pursue the claim of malpractice after a finding of no liability by the panel, the plaintiff must, within 30 days, post a bond of $2,000 for each defendant against whom a claim is being made. If plaintiff then goes ahead with a trial and loses, his posted bond is forfeited to help defray the legal costs of the defendant health care providers. Since plaintiffs often file suit against multiple defendants, the rule requiring that the bond be posted for each defendant would tend to make the plaintiff reluctant to sue those parties against whom liability is very doubtful.

It is reported that the procedure in Massachusetts is working. More than 200 panel hearings have been held since January, 1976 and slightly more than 50% were found to be insufficient to constitute liability. Only 29 plaintiffs posted bonds — no trials have yet occurred in these matters.[3] Massachusetts also has the proviso that the finding of the panel may be admitted into evidence at the later trial. The Massachusetts Supreme Court has upheld that state's panel review when attacked on constitutional grounds.[4]

The Arizona panel review legislation also required a cost bond to be posted by any party who proceeds to trial after an adverse finding by the panel.[5] That statute was recently held constitutional, but the provisions for the cost bond were held to violate the privileges and immunities clause of the state constitution. In all other respects, the Arizona panel review procedure was held to be constitutional.[6]

Kansas has had a procedure for panel review of malpractice claims since 1976. Unlike the Missouri procedure, however, such review is not mandatory.[7] A Kansas panel may be called before a suit is filed if the attorneys for the parties agree to it in writing, and after a suit is filed, it is discretionary with the court. The procedure in Kansas has reportedly been employed on only a few occasions. A judge in Wichita reports that six or seven panels have been appointed in his area and that as of late April, none had yet made a final report. That same judge reported that his difficulty was that since the chairman was a practicing attorney and the three panel members were busy doctors, it was next to impossible to find a time when they could meet. A judge in Hutchinson, Kan. reported in April, 1978 that he had appointed two panels several months before and that no findings had yet been reported to him.

As indicated earlier, neither Missouri panels nor those created in other states have operated long enough to allow a valid appraisal of their effectiveness. If the Missouri Supreme Court rules that the panel review procedure is constitutional, then to make these reviews more effective in the disposition of malpractice claims, further study should be given and some additional provisions in the statute might be considered to strengthen the Missouri procedure.

## REFERENCES

1. 1977 Report of Commission on Medical Professional Liability, ABA, p.43.
2. 538.010-538.080,R.S.Mo.
3. Re: *Medicolegal News*, vol. 6, no. 1, p. 14 (Spring, 1978).
4. *Paro vs. Longwood Hospital*, 369 N.E.2d 985 (Mass. 1977).
5. Section 12-562 et. seq. Rev. Stat. Ariz.
6. *Eastin vs. Broomfield*, 570 P.2d 744 (Ariz. 1974).
7. 65-4901 KSA.

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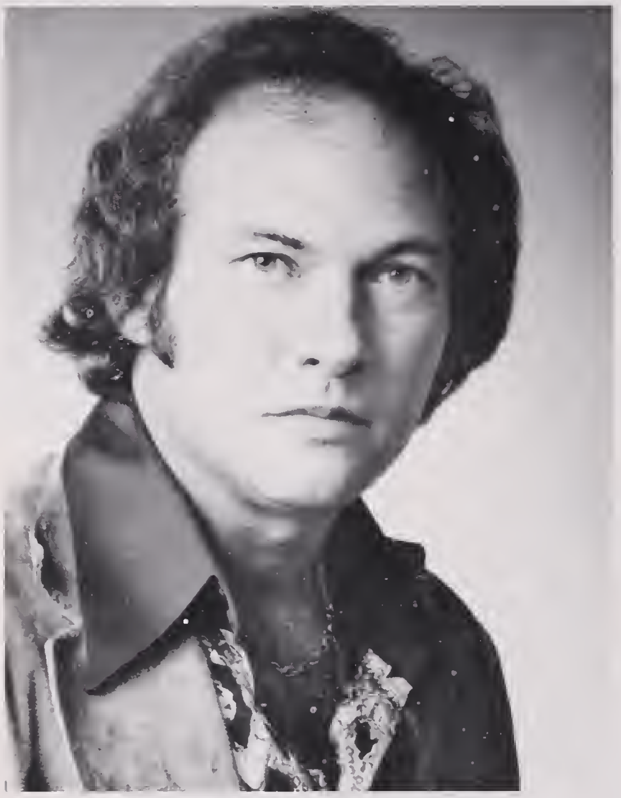

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# NEWS From the Medical Schools

## WASHINGTON UNIVERSITY

Two School of Medicine faculty members, *W. Maxwell Cowan*, Ph.D. and *Samuel B. Guze*, M.D., have been elected to membership in the Institute of Medicine of the National Academy of Sciences.

Membership is based on professional achievement and on demonstrated interest, concern and involvement with problem and critical issues in health sciences, care, education and prevention of disease.

Dr. Cowan is the Edison Professor of Neurobiology, head of the Department of Anatomy and Neurobiology and director of the Division of Biology and Biomedical Sciences.

A native of Johannesburg, South Africa, Cowan received the B.Sc. degree from the University of Witwatersrand, Johannesburg and the Ph.D. degree from the University of Oxford, England.

Dr. Guze is vice-chancellor for medical affairs and Spencer T. Olin Professor and head of the Department of Psychiatry. He graduated from the Washington University School of Medicine in 1945 and joined the faculty in 1951. He serves on various national committees, including the National Advisory Council on Alcohol Abuse and Alcoholism.

More than $7.5 million in free medical care was provided by institutions of the Washington University Medical Center during the 1977 fiscal year, which ended July 1, according to the Center's annual report.

The Center's six institutions — Washington University, Central Institute for the Deaf, Jewish Hospital of St. Louis and Barnes, Barnard Free Skin and Cancer and St. Louis Children's Hospitals — invested almost $33 million in research and spent more than $10 million in capital improvements.

*Samuel B. Guze*, M.D., president of the Medical Center, presented the 1977 report to the annual meeting of the Center's Board of Directors on September 12. *William L. Edwards, Jr.*, was elected chairman of the Board. Other newly elected officers are *Lee M. Liberman*, vice-chairman; *Edward J. Schnuck*, secretary, and *Ethan A. H. Shepley, Jr.*, treasurer. Reelected officers are *M. Kenton King*, M.D., vice-president; *Robert J. Hickok*, assistant secretary, and *Hugh H. Morrison*, assistant treasurer.

## ST. LOUIS UNIVERSITY

*Stephen M. Ayres*, M.D., chairman of the Department of Internal Medicine, has been awarded a $100,000 grant from the National Heart, Lung and Blood Institute for support of his committee's research activities on lung disease.

Dr. Ayres is chairman of the Institute's Pulmonary Diseases Advisory Committee which plays an important role in designing program goals that can be disseminated to the scientific community as potential contracts or as specialized centers of research.

Dr. Ayres

*Roger H. Secker-Walker*, M.D., director of the Division of Pulmonary Diseases, and *Timothy Deakers*, M.S., collaborative investigator, were the recipients of a $15,000 grant from the American Heart Association, Missouri Affiliate, Inc., for the study of leaky pulmonary blood vessels.

The investigators will attempt to measure the leakiness of the blood vessels by means of radioactive tracers and to relate their findings to the amount of functional disturbance which takes place within the lungs.

*Maurice Green*, Ph.D., director of the Institute for Molecular Virology, chaired a workshop on "Mechanism of Integration of Viral DNA into Host Genomes and Genetic Engineering" at the Fourth International Congress for Virology in The Hague, Netherlands. He also delivered two papers while attending the Congress.

Dr. Green also was an invited speaker at the Annual Cold Spring Harbor Symposium in Cold Spring Harbor, N. Y. on "DNA: Replication and Recombination."

*William Wold*, Ph.D., assistant professor of molecular virology, attended a workshop on "The Molecular Biology of Adenoviruses" as an invited speaker. The workshop was held at Orenäs Castle, Sweden

*Henry E. Oppenheimer*, M.D., associate clinical professor of internal medicine, was recently appointed to several posts including the Editorial

Board, *Diabetes Care;* Associate Editorial Board, *Diabetes Forecast;* Search Committee for a new editor, *Diabetes Forecast;* and Committee on Planning and Organization of American Diabetes Association.

Dr. Oppenheimer attended the Annual Meeting of the American Diabetes Association in Boston, where he represented St. Louis as a delegate to the Central Council.

## UNIVERSITY OF MISSOURI-COLUMBIA

Counselling service is now available at the Medical Center for couples concerned about the possibility of birth defects in future children and for families who have a child or another family member with a birth defect.

*Dr. Judith Miles,* a new faculty member in the departments of child health and pathology, is organizing a prenatal diagnostic center at the University Hospital. Dr. Miles is a 1975 graduate of the School of Medicine who previously earned a doctoral degree in genetics. She recently returned from a 14-month special training program in medical genetics at the University of California and Harbor General Hospital in Los Angeles.

By the first of next year, the diagnostic center will have a laboratory for anmiocentesis, a means of prenatal diagnosis and chromosome analysis. With genetic counseling offered now, however, Dr. Miles will also advise women who are pregnant and over 35 years of age or those considering motherhood. Questions about the effects of medications, alcohol and drugs will be answered.

Dr. Miles was graduated from Mount Holyoke College with a degree in zoology before she studied for her Ph.D. degree at Indiana University. She held several positions in research and teaching in genetics programs before entering medical school. She took her residency training in pediatrics at the University of Missouri-Columbia.

*Dr. Constantine Anast,* a member of the School of Medicine faculty since 1956, is the recipient of the Research Award of the UMC chapter of Sigma Xi, national scientific research honorary society.

Presentation of the $500 cash award, certificate and plaque was made at the Sigma Xi Research Award Dinner on September 25. Following the dinner, Dr. Anast gave a lecture on hormonal control of calcium metabolism.

A pediatrician and researcher in mineral and bone metabolism in children, Dr. Anast is the eighth winner of the award which is not given on a

*(Continued on page 496)*

BRIEF SUMMARY OF
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**ANTIMINTH®** (pyrantel pamoate)
**ORAL SUSPENSION**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 μg/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

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Please see brief summary of prescribing information on facing page.

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. . in functional G.I. disorders*

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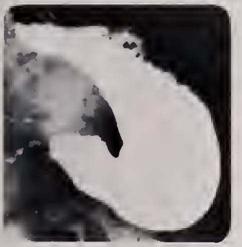
10 mg./5 ml. syrup, 10 mg./ml. injection

helps control abnormal motor activity with minimal anticholinergic side effects†

Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.

Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

*"The correlation of spasm relief and drug given was excellent."*

*This drug has been classified "probably" effective in treating certain functional G.I. disorders.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective.

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage; severe ulcerative colitis; toxic megacolon complicating ulcerative colitis, myasthenia gravis. WARNINGS. In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy Use with caution in patients with. autonomic neuropathy; hepatic or renal disease; ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon; hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension; hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia; urinary hesitancy and retention, blurred vision and tachycardia, palpitations; mydriasis; cycloplegia, increased ocular tension; loss of taste; headache; nervousness; drowsiness; weakness, dizziness; insomnia, nausea, vomiting; impotence, suppression of lactation; constipation; bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. DOSAGE AND ADMINISTRATION Dosage must be adjusted to individual patient's needs.
*Usual Dosage* Bentyl 10 mg capsule and syrup: *Adults* 1 or 2 capsules or teaspoonfuls syrup three or four times daily *Children*. 1 capsule or teaspoonful syrup three or four times daily *Infants* ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg *Adults*. 1 tablet three or four times daily Bentyl Injection: *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only NOT FOR INTRAVENOUS USE. MANAGEMENT OF OVERDOSE: The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested If indicated, parenteral cholinergic agents such as Urecholine® (bethanecol chloride USP) should be used
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## *Medical Schools*

*(Continued from page 494)*

regular basis but only "when a worthy recipient is identified." A committee of scientists chooses the recipient from among nominations of local Sigma Xi chapter members.

In addition to his UMC appointment as director of pediatric endocrinology, Dr. Anast is associate chief-of-staff at the Harry S. Truman Memorial Hospital in Columbia.

Dr. Anast is principal investigator in a project supported by a $330,000 grant from the National Institutes of Health for research into hormonal control of calcium metabolism in children. His research into the interrelationship of the parathyroid hormone, calcitonin and Vitamin D on calcium metabolism is supported by a $280,000 grant from the Veterans Administration.

Drs. Sandra and John G. Davenport are among the new members of the faculty. Dr. Sandra Davenport is an assistant professor of pediatrics whose major research interest is in myelodysplasia. Dr. John Davenport has been appointed chief of the neurology service at the Veterans Hospital and an assistant professor of neurology in the School of Medicine.

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| | | | *First yr.* | *Renewal* | *First yr.* | *Renewal* |
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| | II | Minor Surgery | 983 | 563 | 768 | 432 |
| | IIID | Urologist, Opthalmology, Proctologist | 3,744 | 2.304 | 2.880 | 1,728 |
| | IVB | General Surgeon | 4,880 | 3,080 | 3,840 | 2,400 |
| | IVA | Otolaryngologists, OBGYN, Plastic | 6,243 | 3,795 | 4,896 | 2.938 |
| | IVG | Thoracic, Neuro, Orthopedists | 7,956 | 4,836 | 6,240 | 3,744 |
| | IVH | Anesthesiologists | 8,434 | 5,074 | 6,624 | 3,936 |

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| Class | I | No Surgery | 540 | 340 | 400 | 240 |
| | II | Minor Surgery | 819 | 469 | 640 | 360 |
| | IIIC | Urologist, Opthalmology, Proctologist | 3,120 | 1,920 | 2,400 | 1,440 |
| | IVC | General Surgery | 4,067 | 2,567 | 3,200 | 2,000 |
| | IVD | Otolaryngologist, OBGYN, Plastic | 5,202 | 3,162 | 4,080 | 2,448 |
| | IVE | Thoracic, Neuro, Orthopedists | 6,630 | 4,030 | 5,200 | 3,120 |
| | IVF | Anesthesiologists | 7,028 | 4,228 | 5,520 | 3,280 |

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# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Mercy-Baptist Eye Seminars
**St. John's Mercy Medical Center**
**615 S. New Ballas Rd.**
**St. Louis 63141**
*Contact:* **Richard B. Oglesby, M.D.**

| | |
|---|---|
| **Nov. 12** | Seminar VII — Implant Surgery: Status of the Art |

**American Academy of Ophthalmology**
**15 Second St., N.W.**
**Rochester, Minn. 55901**

| | |
|---|---|
| **Oct. 22-26** | Annual Scientific Meeting Convention Center, Kansas City |

**The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine**
**510 S. Kingshighway, St. Louis 63110**
**(314) 454-2291**
*Contact:* **Ronald G. Evens, M.D.**

| | |
|---|---|
| **Nov. 13** | Program to honor Juan M. Taveras, M.D., Third Director of the Mallinckrodt Institute of Radiology |
| **Dec. 11** | City-Wide Radiology Conference: Double Contrast GI Examinations |
| (1979)<br>**Jan. 1** | City-Wide Radiology Conference: Ultrasound in Obstetrics and Gynecology |
| **Feb. 2** | City-Wide Radiology Conference — Pediatric Radiology |
| **March 3** | City-Wide Radiology Conference — Efficacy Studies in Radiology — The Barium Enema |
| **April 9** | City-Wide Radiology Conference |
| **May 14** | City-Wide Radiology Conference: Radiology of the Temporomandibular Joint |

**American College of Physicians**
*Contact:* **Thomas W. Burns, F.A.C.P.**
**University of Missouri, Columbia 65201**

| | |
|---|---|
| (1979)<br>**March 29-31** | Missouri Regional Meeting |

**University of Missouri-Columbia**
**M-175 Medical Center, Columbia 65201**
**(314) 882-2256**
*Contact:* **William Bradshaw, M.D., Director**

| | |
|---|---|
| **Nov. 10-11** | 19th Annual M.D. Day |
| **Dec. 1-3** | National Conference on Group Relations in Health Care<br>(Contact Elizabeth M. Heimburger, M.D., C-6 Medical Center O (314) 882-2511 |
| (1979)<br>**April 9-10** | 25th Annual Urology Seminar<br>(Crown Center Hotel, Kansas City) |

**Missouri Chapter, American College of Surgeons**
**Box 1268, Columbia 65201**
*Contact:* **Raymond A. Amoury, M.D., F.A.C.S., President**

| | |
|---|---|
| (1979)<br>**June 22-23** | Annual Professional Meeting<br>(Alameda Plaza, Kansas City) |

**Menorah Medical Center**
**4949 Rockhill Rd., Kansas City 64110**
**(816) 276-8089**
*Contact:* **Mrs. Feya Scholtz, Postgraduate Education**

| | |
|---|---|
| **Nov. 15-17** | Postgraduate Course: Clinical Advances in Pediatrics<br>The Children's Mercy Hospital<br>(Contact Kurt Metzl, M.D., Course Coordinator) |
| **Every Thurs.** | Surgical Grand Rounds<br>(Contact Erich W. Pollach, M.D.) |

**Ellis Fischel State Cancer Hospital and Cancer Research Center**
**115 Business Loop West, Columbia 65201**
**(314) 449-2711**
*Contact:* **Carl G. Kardinal, M.D.**

| | |
|---|---|
| **Dec. 9** | Professional Program — Therapy for Lung Cancer |

**Kansas City Southwest Clinical Society**
**2220 Holmes, Room 230-232, Kansas City 64108**
**(816) 471-3876**
*Contact:* **Alta L. Bingham, Executive Director**

| | |
|---|---|
| **Oct. 26-28** | Annual Fall Clinical Conference |

**University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society**
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
*Contact:* Alta Bingham

| | |
|---|---|
| **Dec. 7-9** | The Heart 1978 |
| (1979)<br>**Jan. 21-26** | Mid-Winter Traveling Medical Education Course<br>(Steamboat Springs, Colo.) |
| **Feb. 9-10** | The Long Weekend: Infertility/Endocrinology |
| **Feb. 17-24** | Winter Traveling Medical Education Course<br>(Maui, Hawaii) |
| **March 4-10** | Late-Winter Traveling Medical Education Course<br>(Scottsdale, Ariz.) |
| **April 5-7** | Perspectives in Medicine |
| **April 20-21** | The Long Weekend: Neurology/Renal Diseases |
| **May 3-5** | Seminar: Update in Obstetrics and Gynecology |
| **May 17-18** | Surgical Problems—Old and New |
| **June 7-8** | Symposium: Physical Fitness |

**Washington University School of Medicine**
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 454-3837 or (314) 367-9673
*Contact:* Loretta Giacoletto

| | |
|---|---|
| **Nov. 30-Dec. 1** | Emergency Cardiology — Diagnosis and Therapy |
| (1979)<br>**Feb. 16-17** | TB Today |
| **Feb. 22-23** | Use of the Laboratory in Clinical Practice |
| **March 1-2** | An Update in Renal Diseases |
| **April 19-20** | Recent Advances in the Diagnosis and Treatment of Hyperlipidemias |
| **April 23-24** | Developmental Deviations in Children and Adolescents |
| **April 26-27** | Sixth Annual Symposium on Obstetrics and Gynecology |
| **May 2-4** | Washington University Medical Center Alumni Reunion |

**Kansas City Society of Ophthalmology and Otolaryngology**
3036 Gillham Rd., Kansas City 64108
(816) 531-8432
*Contact:* Mario J. Guastello, M.D., President, or Roger A. Weis, Executive Director

| | |
|---|---|
| **Nov. 30-Dec. 1** | Annual Clinical Meeting<br>(Hilton Plaza Inn, Kansas City) |

**University of Kansas College of Health Sciences**
Division of Continuing Education
Rainbow at Olathe Blvd., Kansas City, Kan. 66103
(913) 588-7130

| | |
|---|---|
| **Oct. 24-25** | Medicine and Religion |
| **Nov. 30-Dec. 1** | Surgery<br>(KUMC and Hilton Plaza Inn, Kansas City) |
| (1979)<br>**Feb. 22-23** | Gynecology and Obstetrics in the 80s |
| **March 12-14** | Pediatrics |
| **March 15-16** | Recent Advances in Therapeutics |
| **March 29-30** | Sexuality of the Handicapped |
| **April 2-3** | Ophthalmology: Ophthalmic Plastic Surgery |
| **April 6-8** | Anesthesiology<br>(Crown Center Hotel, Kansas City) |
| **April 23-24** | Noninvasive Cardiac Diagnosis |
| **April 25-26** | Family Practice<br>(Radisson-Muehlebach, Kansas City) |
| **April 27** | Infectious Diseases<br>(Radisson-Muehlebach, Kansas City) |

**Greater Kansas City Radiological Society**
*Contact:* G. David Dixon, M.D, President-Secretary
(816) 932-2550

| | |
|---|---|
| **Nov. 15** | (Afternoon and Evening Sessions)<br>GI Radiology — Radiology of Egyptian Antiquities |
| (1979)<br>**Jan. 17** | Chest — Biopsies and CT |
| **Feb. 21** | Neuroradiology — Use of Metrizamide |
| **March 21** | Uroradiology |
| **April 18** | Special Procedures |

**St. John's Mercy Medical Center**
615 S. New Ballas Rd., St. Louis 63141
*Contact:* James G. Blythe, M.D., Chairman, Dept. of Obstetrics and Gynecology

| | |
|---|---|
| (1979)<br>**May 10-11** | 11th Annual Matt Weis Symposium — Surgical Techniques in Obstetrics and Gynecology |

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# AMA Winter Scientific Meeting to Be Held on December 7-10

The 32nd winter scientific meeting of the American Medical Association will be held on December 7-10 in Las Vegas at the Las Vegas Convention Center.

In addition to more than 50 continuing education courses in all aspects of medical care, there will be state-of-the-arts lectures in selected medical areas, other lectureships, teaching luncheons, scientific exhibits, videoclinics, motion pictures, telecourses and teaching by videodisc.

The scientific program for the meeting is published in the October 13 issue of the *Journal of the American Medical Association.*

National medical societies will provide programs under their own sponsorship for the first time as a part of the meeting. Specialty programs will be provided by the American College of Chest Physicians, American College of Physicians, American Society for Clinical Pharmacology and Therapeutics and the Section Council on Plastic and Reconstructive Surgery.

AMA leaders will offer a report to the membership on problems facing American medicine and what the AMA is doing about them at a special program on Friday, December 8. Speakers will be Robert B. Hunter, M.D. of Sedro Woolley, Wash., chairman of the AMA Board of Trustees; Tom E. Nesbitt, M.D. of Nashville, Tenn., AMA president; and James H. Sammons, M.D., Chicago, AMA executive vice-president.

A subject often in the news this year is the escalating costs of health care. A special program will be presented, stressing the physician's responsibility in ensuring provision of cost-effective health care.

One of the continuing education courses, yet to be selected, will be broadcast from the meeting via a communications satellite to some 30 Veterans Administration hospitals in the western states.

The meeting is held each winter to provide American physicians with a broad-based learning experience in new developments in medical care.

The AMA Auxiliary will conduct its convention in conjunction with the winter scientific meeting.

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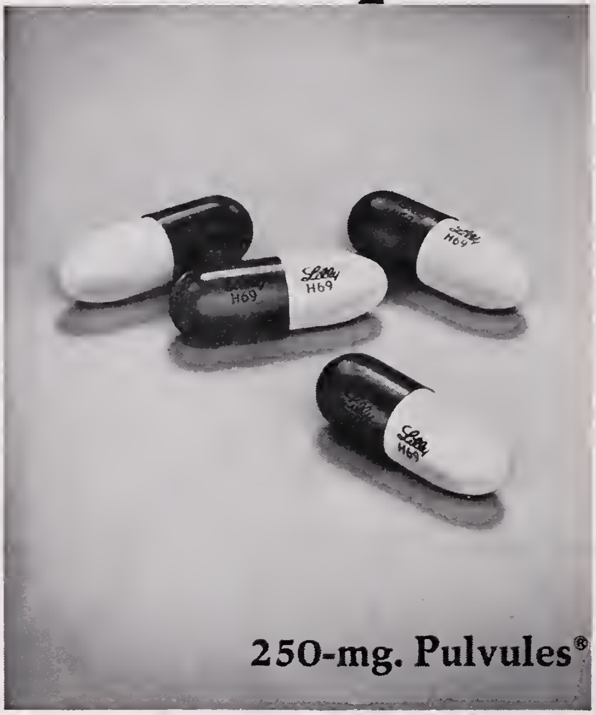
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Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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RICHARD B. WHITING, M.D. *and*
RICHARD H. MARTIN, M.D., *Columbia*

# Coronary Care — 1978

Fifteen years have elapsed since the first coronary care units (CCU) were opened.[1,2] Considerable experience has been gained in the management of the acute forms of coronary heart disease and routines of coronary care have been established. In recent years, an exciting phase in the evolution of coronary care has emerged with efforts directed towards minimizing infarct size and, therefore, preserving myocardium. It seems likely that coronary care will change considerably in the next 15 years and a review of current practice is timely.

## Background of Coronary Care

A detailed history of coronary care is beyond the scope of this review. Interested readers are referred to the excellent text of Meltzer and Dunning.[3] In essence, the early CCUs were formed in order to provide a specialized area where patients with high risk for cardiac arrest could be closely observed and resuscitated, if necessary. There is no doubt that some lives were saved by these units, but the overall mortality of hospitalized patients with acute myocardial infarction was still formidable. The often cited report of Killip[4] describing the results at the New York Hospital is of special interest in this regard. The mortality in the general medical wards was nearly identical to that within the CCU (30% vs 31%). Considering what we know now about cardiopulmonary resuscitation and the early availability of medical house staff in such a hospital, it is not surprising that patients can be salvaged whether in a special care area or not, providing that their arrest is detected promptly.

Animal experiments have shown arrhythmias developing in conjunction with coronary occlusion.[5] Meltzer,[6] in 1960, showed that the most common cause of death in human myocardial infarction was, in fact, the development of rhythm disturbances. Based on the frequency and severity of arrhythmias in this setting plus the disappointing results from early CCU experience, the focus of coronary care shifted to one of arrhythmia prevention. Support for this concept came from the initial studies of Lown[7] which showed a marked decrease of ventricular arrhythmias by the use of antiarrhythmic agents, primarily lidocaine. The sudden occurrence of ventricular fibrillation as a primary electrical event, i.e. not part of terminal cardiac failure, was nearly eliminated. This aggressive approach to rhythm management in coronary care has been associated with a decrease of the inhospital mortality below 20% and often in the 15% range.[8]

With control of most of the serious rhythm disturbances, attention was focused on the next most serious cause of death and disability in patients with myocardial infarction, the so-called "pump failure." In this circumstance, the myocardium is so seriously damaged that it is unable to adequately perform its function as a pump. It is the management (or prevention) of pump failure which now constitutes the major challenge of coronary care.

### CURRENT PRACTICE

It is admittedly difficult to formulate a standardized care plan for acute infarction because of the wide variety of clinical problems plus the need to tailor management to the individual and to the circumstances of his illness. Nonetheless, some basic procedures are applicable to such a large percentage of patients as to be considered "routines." *They should, however, never become so routine as to preclude alteration if the circumstances warrant.*

A list of those items to be considered while a care plan is being formulated might include the following:

A. Monitoring
B. Intravenous Access
C. Activity
D. Diet
E. Laboratory Data
F. Medications
G. Patient Education and Rehabilitation
H. Hemodynamic Monitoring

### MONITORING

This implies more than electronic devices to display and record the electrocardiogram and sound an alarm when the rhythm changes. To be effective, this monitoring must encompass the period of greatest risk from life-threatening arrhythmias. Therefore, it should be instituted as early as possible and continued for at least four days. A longer period of rhythm monitoring is advisable, but it is seldom feasible except in those institutions which have extended follow-up by telemetry. Within the CCU, it is absolutely essential that the personnel involved in the direct care of the patient be trained in the recognition of arrhythmias and early management with a clear mandate to intervene in those circumstances where a change is potentially lethal.

### INTRAVENOUS ACCESS

The possibility of abrupt changes in cardiac rhythm or hemodynamics during the early phase of myocardial infarction makes a reliable venous route highly desirable. Most CCUs routinely place an intravenous line kept patent by a slow infusion of fluids or a heparin lock.

### ACTIVITY

In general, the activity orders during the stay in the Coronary Care Unit should form a balance between an effort to minimize the demand of the myocardium for oxygen and the need for some activity to maintain both peripheral circulation and patient morale. Usually, the patient is kept at bedrest for most of the first day and then gradually ambulated. The bedside commode is much easier to use than a bedpan and is routinely available. If a patient is stable, he can sit on the edge of the bed even during the first hospital day and, certainly, by the second hospital day.[9, 10] Blood pressure and heart rate can be checked in the supine and seated positions. If there are no significant changes, the patient may be helped to a chair at the bedside. By the third day, the stable patient can sit up for meals and, if desired, for other brief periods of time. By the time the patient is to leave the coronary care area on the fourth or fifth day, he has walked short distances within his room and has achieved a level of ambulation similar to that required in a regular hospital room. If a patient shows evidence of fatigue, dyspnea or sinus tachycardia during mild activity, then his ambulation schedule is slowed accordingly.

### DIET

Most CCUs advocate a liquid or soft diet during the first one or two days after an acute myocardial infarction. In addition, some salt limitation is usually advocated since many patients will develop a degree of congestive heart failure within the first week of their infarct.[11] Some patients, at the time of their discharge from the hospital, will be advised to use a diet modified in its fat content. This should be incorporated into the early hospital diet, i.e., in the Coronary Care Unit. At the Missouri University Medical Center, a diet which is restricted to 2 gm of sodium and one which is low in animal fats is arranged in three categories — liquid, soft and solid. These diets are labeled Coronary I, II, and III and are automatically advanced by the nursing staff as the patient's status permits.

### LABORATORY DATA

Due to the ever-escalating costs of medical care, routine laboratory data should be minimized. Nonetheless, an initial screen to detect other complicating illness is necessary. This should include a complete blood cell count; laboratory studies for blood urea nitrogen, blood sugar, serum electrolytes, urinalysis, stool for occult blood; and a chest x-ray. An electrocardiogram should be obtained on admission and then daily for at least three days. Measurement of serum enzymes has become a very important means of documenting an infarction and following its evolution. Techniques involving the serial determinations of creatine phosphokinase (CPK), which have been reported, allow estimation of the size of a completed infarct.[12] Similar techniques, if applied very early in the course of the episode, may allow prediction of the extent of infarction.[13]

These techniques have not been widely applied to hospitals outside the research area. The current approach is one which uses enzymes to help make or rule out a diagnosis of infarction including possible extension. A serum specimen for CPK, serum glutamic oxaloacetic transaminase (SGOT) and lactic dehydrogenase (LDH) measurements should be obtained on admission and repeated the following day. In cases with unequivocal evidence of infarction, there is little value in repeating these on a daily basis unless indicated by the hospital course.

The MB isozyme of CPK is a useful determination in those patients who have a potential noncardiac source for their elevated enzymes such as intramuscular injections. This fraction of CPK is elevated only after myocardial injury since heart muscle is the only significant source for this isozyme.[14]

## MEDICATIONS

In general, any medication not clearly required by the patient on a day-to-day basis should be withheld at the time of admission.

A major goal of coronary care is to make the patient comfortable, which includes relief of pain. This is best achieved by small increments of intravenous narcotics such as morphine in 2 mg to 4 mg doses. This eliminates concern and waiting for absorption of intramuscular injections and allows the physician to use the lowest dose of the agent which effectively relieves the pain. It is important to realize that residual chest discomfort is not uncommon during the 12- to 24-hour period after an infarct. This is a mild discomfort which does not prevent sleep or cause excessive anxiety and does not usually require more narcotic. Morphine has parasympathetic side effects and should not be given to those patients with bradycardia or heart block. An alternate approach in such a patient is the use of morphine with atropine or to use small doses of intravenous meperidine.

Most CCUs routinely give oxygen to patients with myocardial infarction. This often relieves dyspnea and anxiety. In addition, recent animal experiments have suggested that oxygen exerts a protective effect on the myocardium itself following coronary occlusion.[15] In these animal models, the measured area of myocardial damage after such an occlusion was lessened by the use of oxygen. Thus, routine use of oxygen for the first one-to-three days following clinical infarction seems to have a sound theoretical basis. The only possible concern is the use of oxygen in those patients with chronic lung disease and carbon dioxide retention. In such individuals, oxygen administration by correcting hypoxia may eliminate a potent stimulus for breathing and, therefore, further contribute to the retention of carbon dioxide by depressing respiratory rate and depth. Patients with chronic pulmonary disease, therefore, should be carefully observed while receiving oxygen for evidence of carbon dioxide retention.

Many CCUs advocate the routine use of stool softeners or laxatives and, also, antacids between meals to counter the common gastrointestinal complaints of acutely ill and somewhat immobile patients.

Many individuals do not need sedation if the atmosphere of the CCU is restful and if the attitude of the physician and staff fosters confidence. Those patients who are tense should be given mild sedatives, particularly at bedtime, to assure a restful sleep.

The aggressive treatment of ventricular arrhythmias has been a major factor in lowering the inhospital mortality from acute myocardial infarction and such therapy is clearly indicated.[16, 17] It seems likely that many early rhythm changes go undetected due to less than optimal electronic equipment or poor nurse/patient ratio related to staffing problems. In addition, several studies have shown instances of ventricular tachycardia or fibrillation occurring without the warning signal of ventricular premature beats.[18] For these reasons, we favor the prophylactic use of lidocaine as soon as the possibility of acute myocardial infrac-

**Extensive experience has been gained in the management of the acute forms of coronary heart disease and routines of care have been established since the first coronary care units were opened 15 years ago. The authors present a review of current practice and suggest goals for research and management in coronary care in the future. Dr. Whiting and Dr. Martin are from the Cardiology Division, Department of Medicine, University of Missouri Medical Center.**

tion is entertained at least to cover transit to the Coronary Care Unit. This agent is given as a bolus injection of 1 mg to 1.5 mg per kg and maintained by an infusion of 2 mg per minute. This infusion is tapered off at 48 hours unless specific need for lidocaine is observed. Two additional points must be made: (a) The *prophylatic* use of any drug is avoided when there is a relative contraindication. For example, a patient with known liver disease probably should not receive lidocaine unless there is a documented need since this drug depends on hepatic function for its detoxification;[19] B. Nursing personnel must be aware of the side effects of lidocaine and carefully observe the patient for signs of early toxicity.

The routine use of anticoagulants in the CCU remains controversial. Reported benefits from this form of therapy unfortunately derive from an era of patient immobility.[20] The activity program mentioned above represents a definite departure from past practice of prolonged bedrest, and it seems likely that the incidence of venous thrombosis with subsequent embolism has been markedly lowered.[21] One can make a good argument for implementation of the new mini-heparin programs[22] in patients with congestive failure on the right side, venous disease or when immobility becomes necessary. Reported results of this approach have been divergent.[23, 24] In such patients, we favor the more standard dose heparin anticoagulation on a short term basis.

## Patient Education and Rehabilitation

The acute coronary episode represents but one facet of coronary atherosclerosis. Plans for the long-range management of this disease process should be initiated while the patient is still in the hospital. The patient and his family are given instructions concerning the nature of coronary disease and myocardial infarction, the role of diet, smoking, blood pressure control and physical activities. The patient and his family also must understand the medications. We usually obtain a treadmill stress test at approximately two and one-half to three months following infarction and before the patient returns to full work activity. The results of this procedure provide guidelines concerning the safety of exercise. In general, we believe patients should be as active as their condition allows. Therefore, even those too limited to return to regular employment are encouraged to take short, regular walks as dictated by the results of their stress test.

## Hemodynamic Monitoring

The use of the balloon-tipped, flow-directed, pulmonary artery catheter has greatly facilitated the dynamic assessment of sick patients.[25] Such monitoring is useful in judging the presence and severity of ventricular failure[26] and, through the thermodilution cardiac output technique,[27] the severity of any perfusion deficit. Optimal management of patients with congestive heart failure or low perfusion or both depends on accurate measurements of left ventricular filling pressure as reflected by the pulmonary arterial wedge pressure (or pulmonary artery diastolic pressure in the absence of pulmonary arterial disease) and the cardiac index.[28] Mild degrees of left ventricular failure can often be managed with small doses of diuretics without pulmonary artery catheterization by using examination of the heart and lungs plus a chest x-ray as guides for the degree of heart failure. Most instances of moderate failure and all cases with hypotension require hemodynamic assessment so that the selection of therapy can be based on the specific hemodynamic factors involved.

Pulmonary artery pressure monitoring is also helpful in the management of patients with systemic hypertension which is severe (diastolic pressure greater than 115 mm Hg) or who are unresponsive to rest, assurance, sedation and pain relief. Some of these patients respond to vasodilating drugs by a decrease in arterial pressure and relief of chest discomfort. However, if the filling pressure of the left ventricle is low or falls below 12 mm Hg, this may seriously compromise cardiac output resulting in a reflex tachycardia. Therefore, pulmonary artery pressure monitoring is an important adjunct to vasodilator drugs in this setting.[29]

## Future Goals

The major thrust of research in coronary care currently is the concept of myocardial preservation by which infarct size is minimized. Since the major complications of myocardial infarction are related to the size of the damaged area,[30] this seems a worthwhile goal. That this is feasible is suggested by animal experiments in which certain agents are able to decrease the degree of ischemic electrocardiographic changes, decrease the number of leads showing these changes and decrease the creatine phosphokinase (CPK) lost from myocardium after a coronary occlusion.[31]

In the clinical setting, many agents are being considered and a few seem to offer a real promise of success. Noteworthy is the use of hyaluronidase[32] which promotes the exchange of nutrients and wastes within the myocardium apparently by improving diffusion of substances directly through tissue.

In patients with severe hypertension, decrease of peripheral vascular resistance by vasodilating agents has been associated with a 20% decrease in the size of an infarction compared to that predicted from CPK curves obtained during the early hours after admission.[29]

Many other approaches have been considered,[33] but most of these are still experimental and should be left to those centers active in this form of research. Carefully selected patients may benefit from the use of propranolol[34] or vasodilator therapy in the absence of hypertension[35] but, in general, the practical approach to myocardial preservation currently is to avoid unnecessary work or excitement, avoid tachycardia and extremes of blood pressure and correct such disorders as hypoxia, arrhythmias and severe anemia.

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# Maternal Medication and Minimal Brain Dysfunction

## *A Possible Relationship*

THE INCIDENCE OF HYPERACTIVITY in children appears to have increased sharply over the past 25 years. It has been found that between 5% to 20% of school age children suffer from this syndrome,[1-4] and about 10% of the children the same age are said to have learning disabilities.[5] The etiologic factors described in the literature are diverse. These may include genetic, organic, psychogenic and environmental factors.

Ney,[6] who based his studies on possible etiology, has described four types of hyperactivity. Those children who had normal prenatal and perinatal histories and symptoms and who demonstrated signs of hyperactivity from infancy were considered as genetic hyperactives. Behavioral hyperactivity included children whose hyperactivity was due to poor parental handling. The third type of hyperactivity is considered to be due to a chaotic home environment and was classified as reactive hyperactivity. The last category described as minimal brain dysfunction (MBD) consisted of children with early continuous hyperactivity and histories of abnormal pregnancies and perinatal events.

**The burgeoning literature on hyperactivity, minimal brain dysfunction (MBD) and its sharp increase in recent years merits special attention to the causes. The authors briefly review the literature on the effect of drugs and chemical agents during the developmental years and report their study. They suggest that in addition to known causes of hyperactivity and minimal brain dysfunction, frequent use of drugs during pregnancy might be related to an increase in MBD and warrants once more the necessity of being cautious of prescribing medication during pregnancy. Dr. Husain is Associate Professor and Dr. Kashani is Assistant Professor, Section of Child Psychiatry, Department of Psychiatry, University of Missouri School of Medicine.**

Much has been written in recent years about various perinatal events which may be responsible for the causation of minimal brain dysfunction in children. However, there is very little documentation in the literature regarding the effects of maternal medication during the pregnancy in the development of MBD. The purpose of this study is to look into this particular issue and determine if, in fact, this particular factor has a possible relationship to causation of MBD in children.

Prenatal events such as excessive bleeding, nutritional deficiencies, infectious diseases (such as German measles) and overexposure to radiation have been associated with MBD. Premature birth, toxemia of pregnancy, Rh incompatibility and umbilical cord complications have been implicated as causes. Postnatally, infectious diseases producing meningitis and encephalitis may cause damage to the central nervous system (CNS) and result in MBD.[7]

Environmental agents, such as pollutants, also have been the subject of study as they relate to the noxious effect on the growth and development of the CNS. These agents may produce harmful effects both in utero and in vivo. Several studies have suggested that heavy maternal smoking during pregnancy has produced fetal anoxia and brain damage.[8] Similar studies on the effect of maternal drinking during pregnancy have shown that irreversible brain damage, mild facial deformity and heart disorders may ensue in the fetus of such mothers.[9]

Postnatally, some of the environmental agents also have been found to be equally damaging to the brain. Silbergeld and Goldberg[10] have produced and replicated a lead induced animal model of hyperactivity.

In the young children of urban slums, lead poisoning is a major source of brain damage, mental deficiency and serious behavior problems. In New York, David Oliver *et al*[11] noticed that hyperactive children possessed higher blood lead levels than controls. On the basis of their statewide survey of small towns in Illinois, Fine *et al*[12] reported that pediatric lead intoxication is not confined to urban ghettos but does occur with alarming frequency in small communities.

Food additives have been under scrutiny recently as a possible cause of hyperactivity in children. Numerous reports have linked hyperactivity, irritability and other nervous system reactions to allergic conditions, particularly to food additives.[13, 14] The underlying physiological cause of the behavioral reaction has not yet been established. However, one possibility is that the allergens directly affect the central nervous system by causing a noninflammatory swelling of the brain in areas that contain the neural connections controlling aggression, with a resultant increase in sensitivity of these areas to stimulation.[14] A second possibility suggested by Moyer[15] is that of a disinhibitory effect on areas of the brain that normally control aggressive tendencies.

## Methodology

For the purpose of this study, we reviewed the charts of all first admission patients referred to a pediatric developmental evaluation clinic from July, 1973 to May, 1976. Patients were selected for further study only when a question regarding prenatal maternal medication was specifically asked and recorded. In this case, it turned out that the question of taking medication during pregnancy was specifically asked only when the case intake was done by a nurse. We presume that since this intake assignment was done randomly, it has not biased the sample. Also, all cases were excluded when a history of trauma, infectious disease or other physical illness may have caused the MBD. These charts were further scrutinized for the type of medication used by the mothers during the pregnancy and, also, for any abnormalities present in the children at the time of their visit to the pediatric clinic. The diagnosis of MBD was based on a comprehensive evaluation by a team of professionals consisting of a pediatrician, psychologist, speech pathologist and educational specialist and a child psychiatrist, if needed. The criteria for making the diagnosis of MBD were similar to that described in "National Project on MBD in Children — Terminology and Identification:"[16]

"This term as a diagnostic and descriptive category refers to children of near average, or above average, intellectual capacity with certain learning and/or behavioral disabilities ranging from mild to severe, which are associated with deviations of function of the central nervous system. These deviations may manifest themselves by various combinations of impairment in perception, conceptualization, language, memory and control of attention, impulse or motor function. These observations may arise from genetic variations, bio-chemical irregularities, perinatal brain insults, or other illnesses or injuries sustained during the years critical for the development and maturation of the central nervous system. . . ."

## Findings

*The mothers.* There were 74 mothers who were

TABLE 1
MEDICATION USED BY MOTHERS

| | N | % |
|---|---|---|
| Antibiotics | 18 | 29 |
| Diuretics | 16 | 25.8 |
| Anti-anemic | 11 | 17.7 |
| Anti-emetic | 10 | 16.1 |
| Anti-anxiety | 7 | 11.3 |
| Anti-epileptic | 5 | 8.1 |
| Thyroid | 3 | 4.8 |
| X-Ray | 2 | 3.2 |
| Stimulant (dexedrine) | 2 | 3.2 |
| Analgesics | 2 | 3.2 |
| Calcium | 2 | 3.2 |
| Anti-hypertensive | 1 | 1.6 |
| Anti-hemorrhage | 1 | 1.6 |
| Orinase | 1 | 1.6 |

TABLE 2
ABNORMALITIES IN CHILDREN

| | N | % |
|---|---|---|
| MBD | 31 | 50 |
| Learning disabilities | 30 | 48 |
| Musculo-skeletal abnormalities | 12 | 19.4 |
| Neurological deficit | 11 | 17.7 |
| Facial deformities | 11 | 17.7 |
| Heart murmurs | 5 | 8.6 |
| Seizure | 4 | 6.5 |
| Loss of hearing | 4 | 6.5 |
| Urogenital abnormalities | 4 | 6.5 |
| Color blindness | 3 | 4.8 |
| Short neck | 2 | 3.2 |
| Cafe-au-lait spots | 2 | 3.2 |
| Metabolic hormonal | 2 | 3.2 |
| Skin abnormalities | 2 | 3.2 |
| Others (accessory nipple, very slow activity, etc.) | 5 | 8.6 |

TABLE 3
DRUGS EXCRETED IN THE HUMAN PLACENTAL BARRIER AND IN THE MILK OF THE MOTHER

| | *Cross Human Placental Barrier* | *Excreted In Milk* |
|---|---|---|
| I. Analgesics | | |
| Acetaminophen (Tempra) | | X |
| Acetophenetidine | X | |
| Aspirin | | X |
| Butazolidin | | |
| Mefenamic Acid (Ponstel) | | X |
| Oxyphenbutazone (Tendearil) | | X |
| Propoxyphen (Darvon) | | X |
| Salicylates | X | X |
| II. Antibacterials | | |
| Chloramphenicol | X | X |
| Furadantin | | X |
| Isoniazid | X | X |
| Neomycin | | X |
| Nitrofurantoin (Furadantoin) | | X |
| Novobiocin | X | X |
| Oxacillin (Prostaphlin) | | X |
| P-Aminosalicylic Acid (DAS) | | X |
| Penicillin | X | X |
| Streptomycin | X | X |
| Sulphonamides (long acting) | X | X |
| Tetracycline | X | X |
| III. Anticonvulsants | | |
| Barbiturates | X | X |
| Diphenylhydantoin (Dilantin) | | X |
| IV. Antithyroid | | |
| Iothiouracil (Itrumil) | X | |
| Methimazole (Tapazole) | X | X |
| Propylthiouracil | X | X |
| Potassium Iodide | X | |
| V. Diuretics | | |
| Mercurials | X | |
| Thiazides | X | |
| VI. Drugs of Abuse | | |
| Alcohol | X | X |
| Amphetamines | X | X |
| Barbiturates | X | X |
| Bromides | X | X |
| VI. Drugs of Abuse *(Continued)* | | |
| Heroin | X | X |
| L.S.D. | X | |
| Methadone | X | X |
| Morphine | X | X |
| Nicotine | | X |
| VII. Hypnotics & Sedatives | | |
| Barbiturates | X | X |
| Chloralhydrates | X | X |
| Codeine | | X |
| Ethinamate (Valmid) | | X |
| Paraldehyde | X | |
| Pentothal | | X |
| Scopolamine | | X |
| VIII. Psychotropic Drugs | | |
| Chlorpromazine (Thorazine) | X | X |
| Hydroxyzine (Atarax, Vistril) | | X |
| Imipramine (Tofranil) | X | X |
| Lithium | X | |
| Meprobamate | X | |
| Prochlorperazine (Compazine) | X | X |
| Reserpine | X | X |
| Tranylcypromine (Parnate) | X | |
| Trifluoperazine (Stelazine) | X | X |
| IX. Stimulants | | |
| Benzedrine | | X |
| Caffeine | | X |
| Dexedrine | | X |
| Ephedrine | | X |
| X. Vitamines | | |
| A | X | X |
| B | | X |
| C | | X |
| D | X | X |
| E | | X |
| K | X | X |

specifically asked if they had taken medication during the pregnancies of the children who were being studied. Sixty-two mothers (83%) reported taking medication during pregnancy which was prescribed to them by their family physician or obstetrician. Twelve reported taking no drugs during this time. The average age of the experimental mothers at the time of pregnancy was 24.7 years. The most commonly used medications included antibiotics (29%), diuretics (25.8%), antiemetics (17.7%) and antianxiety drugs (11.3%) (Table 1).

*The children with maternal medications.* Of the 62 children whose mothers reported taking medication during pregnancy, 48 were boys, constituting a boy/girl ratio of 3.5:1. The average intelligence quotient (IQ) (WISC) of these children was 90.97. A further breakdown of the distribution of IQs revealed that 42 of these children were of normal intelligence and 19 were in the borderline range (69-84). Only one child exhibited superior intelligence (IQ, 122). Average birth weight was 6.49 lb. Thirteen children weighed 5 lb; 13, 6 lb; 14, 7 lb; nine, 8 lb; and two, 9 lb. In 11 children, the birth weight was not recorded. Interestingly, children whose mothers took diuretics during pregnancy had lower birth weights. Nine of 16 of these children weighed 5 lb or less. Thirty-one of the sample had symptoms of hyperactivity, while 30 had learning disabilities only. Twenty-one children had additional physical abnormalities involving other systems (Table 2).

*The children without maternal medications.* Of the 12 children whose mothers reported taking no medication during pregnancy, seven were boys and five were girls. Their average IQ was 94.1. The average birth weight was 6.6 lb and the mothers' mean age at birth of these children was 30.2 years. One of the children in this group was diagnosed as having MBD. One child had neurofibromatosis, but no other anomalies in this child or the others was noticed.

## DISCUSSION

A large number of chemical agents, including prescribed drugs, cross the placental barrier and reach the fetus (Table 3). The teratogenic effects of many of these drugs, e.g. thalidomide, have been documented. The noxious effects of various drugs on the human brain has been discussed by Lowe.[17] He delineates eight periods of special vulnerability during which the human brain is most susceptible to the noxious effects of these drugs. Six of these periods fall in the antenatal and perinatal period.

When these drugs reach the fetus, they may produce direct harm by damaging the still immature and over susceptible brain of the fetus. Indirectly, these drugs may produce deviations of function of the central nervous system by affecting the enzyme system of the body. These deviations may manifest themselves by causing various combinations of impairment in perception, conceptualization, language, memory and control of attention, impulse or motor function.

The sharp increase in the incidence of hyperactivity and MBD in recent years may be partially due to maternal medication during pregnancy. In this study, 50% of the children born to mothers taking medication developed MBD. However, only one of the children in the control group (8.3%) had MBD.

This study has many limitations. To study the role of maternal medication in the development of MBD presents a variety of methodological problems. It is difficult to control the effect of variables such as the illness for which the medication was being administered, age of the mother and parity. It also is difficult to control other perinatal events which may have contributed to the causation of MBD. The other problem specific to this study is the small number in the control group which makes the statistical analysis difficult, although simple percentage values are impressive but not adequate for statistical analysis.

We suggest that for future investigations, a prospective approach be taken in studying this problem, although the approach will also have problems of controlling diverse variables.

## CONCLUSION

There are numerous evidences which point to the possible role which antenatal maternal medication may play in the causation of MBD. The investigation of this issue presents methodological difficulties because of various other concurrent causative factors. However, this study reemphasizes the need to use extreme caution in prescribing medication to expectant mothers.

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Physicians and their spouses are serving in state legislatures across the country. To date 36 medical family members in 24 states hold state house or senate seats.

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# Diagnosis and Treatment of the Patient With An Acute Acquired Coagulation Problem

AMONG THE MOST CHALLENGING PATIENTS are those with acute bleeding. They frequently appear at inopportune times and often do frightening things. The fundamentals of a successful resolution of the crisis require information and planning. The cause of bleeding usually can be determined by a thorough history, physical examination and selected coagulation studies. Therapy then can be appropriately directed at the cause of bleeding as well as to the replacement of blood components.

The best screening test for bleeding disorders is a thorough history, reporting previous bleeding, transfusion, surgery, drugs, diseases and family. Patients with significant clotting disorders seldom have surgery without complicating hemorrhage and transfusion. Drugs and disease may impair platelet or clotting factor production or function. Family members with a history of unusual bleeding suggest inherited disorders.

Physical findings are also useful. Petechiae and splenomegaly may accompany platelet disorders. Spider angiomata and scleral icterus are hallmarks of chronic liver disease with the possibility of factor deficiencies, increased fibrinolytic activity and thrombocytopenia. Multiple joint deformities suggest congenital deficiencies of factors VIII or IX. Above all, look for common, not obscure, causes.

Abnormal findings in the history or physical examination should be looked into with a selective group of tests. Most disorders can be detected by a prothrombin time, activated partial thromboplastin time, fibrinogen and platelet count (Table 1). Other tests, including specific factor assay, platelet aggregation, plasmin and fibrin degradation products, may be useful in explaining abnormal screening test results. Abnormal laboratory test results should not be treated. Tests are a guide to treating the patient. The test results in Table 2 are levels that require attention, but not necessarily action.

Acute hemorrhage is most often associated with massive transfusion, cardiopulmonary bypass and the use of certain drugs (Table 3). Transfusion of ten or more units of blood within 12 hours or less frequently produces dilution of factors V and VIII and platelets since they are unstable in stored blood.[1] This results in prolongation of the prothrombin and activated partial thromboplastin times and a fall in the platelet count. Once these abnormalities have been demonstrated factors V and VIII may be replaced by fresh frozen plasma and the platelets by platelet concentrates. One or two units of fresh frozen plasma and eight platelet concentrates are sufficient for initial therapy. The coagulation parameters should be monitored after each ten units of blood and appropriate treatment used when necessary.

During cardiopulmonary bypass, heparinization produces prolonged prothrombin and activated partial thromboplastin times. Fibrinogen

**TABLE I**
**FACTOR**

**Comparison of prothrombin time (PT), activated partial thromboplastin time (APTT), fibrinogen (FIB) and platelet count (PLT CT) with the coagulation factors and platelet number. The tests may be abnormal (Yes) or unaffected (No) by a Factor deficiency or platelet decrease.**

| *Test* | *I* | *II* | *V* | *VII* | *VIII* | *IX* | *X* | *XI* | *XII* | *XIII* | *Platelet Number* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PT | Yes | Yes | Yes | Yes | No | No | Yes | No | No | No | No |
| APTT | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | No | No |
| FIB | Yes | No | No | No | No | No | No | No | No | No | No |
| PLT CT | No | No | No | No | No | No | No | No | No | No | Yes |

TABLE 2
COAGULATION SCREENING TESTS. REFERENCE VALUES AND THE LEVELS AT WHICH TREATMENT SHOULD BE CONSIDERED

| *Test* | *Reference Interval* | *Consider Treatment* |
|---|---|---|
| Prothrombin time | 10-13 SEC | >15 SEC |
| Activated partian thromboplastin time | 23-40 SEC | >45 SEC |
| Platelet count | 125-400 $th/mm^3$ | <75,000 $th/mm^3$ |
| Fibrinogen | 125-400 mg/dl | <75 mg/dl |

TABLE 3
PERCENT OCCURRENCE AND ASSOCIATED SITUATION FOR MOST ADULTS WITH ACUTE ACQUIRED HEMORRHAGE

| *Occurrence (%)* | *Associated Situation* |
|---|---|
| 55 | Massive transfusion |
| 15 | Cardiopulmonary bypass |
| 12 | Drugs |
| 9 | Liver disease |
| 6 | Intravascular coagulation and fibrinolysis |
| Uncommon | Vitamin K deficiency |
| Uncommon | Chronic ITP |
| Uncommon | Hemorrhagic thrombocythemia |

falls and fibrin degradation products appear. Platelets decrease and a defect in platelet aggregation develops. These abnormalities usually resolve within two hours of the completion of surgery.[2] Bleeding, when it occurs, is usually from too few and inadequately functioning platelets. Eight platelet concentrates are usually adequate therapy but, occasionally, one or two units of fresh frozen plasma are necessary to replace fibrinogen.

Clinical complications of the thrombocytopenia associated with various drugs may be treated with platelet concentrates. Antineoplastic drugs and quinidine are the most frequent culprits. Aspirin interferes with platelet aggregation for several days[3] so that even though the platelets are adequate in number, oozing may occur because of impaired function. Providing that there is no aspirin in the patient's plasma, platelet concentrates can correct this defect.

Prolonged ingestion of antibiotics may sufficiently alter the intestinal flora to result in vitamin K deficiency and consequent depressed activity of factors II, VII, IX and X with resulting prolongation of the prothrombin and activated partial thromboplastin times.[4] Ten to 15 mg of intrave-

TABLE 4
BLOOD PRODUCT
INDICATIONS AND CONDITIONS FOR USE AND COMPLICATIONS OF USING VARIOUS BLOOD PRODUCTS

|  | *Whole Blood* | *Fresh Frozen Plasma* | *Cryoprecipitate* | *Factor VIII* | *Factor IX* | *Platelet Concentrate* |
|---|---|---|---|---|---|---|
| Indications | Active bleeding | Clotting factor deficiency | Factor VIII deficiency | Factor VIII deficiency | Factors II, VII, IX, X deficiency | Thrombocytopenia<br>Thrombasthenia<br>Thrombopathy |
|  |  |  | Fibrinogen deficiency |  | Factor VIII deficiency with anti VIII |  |
| Administration | 2-3 Hours | Rapidly | Rapidly | Rapidly | Rapidly | Rapidly |
| Filter required | Yes | Yes | Yes | Yes | Yes | Yes |
| ABO/Rh specific | Yes | ABO compatible | ABO compatible | No | No | No |
| Crossmatch | Yes | No | No | No | No | No |
| Contraindications |  | ICF | ICF | ICF | ICF<br>Liver disease | ICF |
| Complications | Uncommon | Uncommon | Uncommon | Hepatitis | Clotting<br>Hepatitis | Uncommon |

**A prothrombin time, activated partial thromboplastin time, platelet count and fibrinogen along with the patient's history and a physical examination usually will identify the cause of acute bleeding. Whole blood, fresh frozen plasma and platelet and factor concentrates can provide specific therapy for the clotting disorder, but they must be combined with control of the precipitating cause. Dr. O'Kell is Chairman, Department of Pathology and Ms. Thompson is Supervisor of the Blood Bank at St. Luke's Hospital.**

nous vitamin K will correct these aberrations within 12 to 24 hours. Two units of fresh frozen plasma will correct the deficiencies immediately. Anticoagulants administered orally also depress the activity of factors II, VII, IX and X. When necessary, these effects can be reversed in the same way as those of vitamin K deficiency.

There are several blood products available to specifically treat the acutely bleeding patient (Table 4). Fifteen minutes to one hour are necessary to provide these components to the patient. Blood must be crossmatched, fresh frozen plasma and cryoprecipitate thawed, cryoprecipitate and platelet concentrates pooled and factor VIII concentrate and factor IX complex reconstituted.

Acute bleeding is an indication for whole blood, but not packed red cells and saline or fresh frozen plasma. Bank blood may be deficient in factors V and VIII but contains sufficient quantities of all other factors. Platelets are also deficient in bank blood. The only time these deficiencies pose a problem is during massive transfusion.

Fresh frozen plasma may be used as a source of all coagulation factors, but it should be used only when a demonstrated need exists. Cryoprecipitate is a source of factor VIII and fibrinogen. A unit of fresh frozen plasma or cryoprecipitate will raise the plasma fibrinogen approximately 25 mg/dl.

Each platelet concentrate may raise the platelet count from 5,000 to 10,000 per mm$^3$. Since eight are usually given at a time, an increase of 40,000 to 80,000 per mm$^3$ can be expected with each transfusion. Fever, splenomegaly, isoimmunization to platelet antigens, active bleeding and systemic infection can decrease the expected rise after transfusion.[5]

Coagulation factor preparations and platelets probably should not be used during intravascular coagulation and fibrinolysis until the patient has been heparinized to reduce the risk of promoting more clotting.[6]

Factor IX concentrates have been associated with thrombosis in patients with liver disease.[7] Fresh frozen plasma should be used for these patients.

The major complication of clotting factor use is hepatitis,[1] especially with fibrinogen, VIII and factor IX concentrates. Factor VIII or factor IX concentrates should be used only for patients with a congenital deficiency of factor VIII or factor IX. Factor IX concentrate may be useful in patients with a factor VIII deficiency and an anti-factor VIII.[1]

A close working relationship with the physicians and technologists in the blood bank eases the care of the bleeding patient. Their special knowledge of blood and blood products and of the availability of these products makes them valuable consultants.

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Marvin Singleton, M.D., Joplin, was elected publicity chairman for the American Society of Ophthalmologic and Otolaryngologic Allergy at its recent meeting in Las Vegas. Dr. Kurt J. Block, a noted immunologist and professor of medicine, Harvard Medical School and chief of the Clinical Immunology and Allergy Units, Massachusetts General Hospital, was the guest speaker. A comprehensive scientific program was held in conjunction with the American Academy of Otolaryngology. The Society presented more than 30 instructional courses.

WILLIAM B. MILL, M.D. *and*
MARK E. FRISSE, *St. Louis*

# Herpes Zoster in Hodgkin's Disease

**This retrospective study of patients irradiated for Hodgkin's disease was made to determine if the appearance of herpes zoster signalled impending relapse. It is concluded that this appearance does not necessarily indicate relapse. If relapse occurs, however, there is a high probability it will appear in the region of the herpes zoster.**

**Dr. Mill is Assistant Professor of Radiology, Division of Radiation Oncology, Mallinckrodt Institute of Radiology and Mr. Frisse is a student at Washington University School of Medicine.**

SINCE THE EARLY OBSERVATIONS of Pancoast and Pendergrass,[1] many authors have reported an increased incidence of herpes zoster in patients with advanced Hodgkin's disease[2-8] as well as in patients with localized disease.[5] Because of the high incidence of varicella infection in the general population[9] and the presumption that varicella virus is latent in their tissues,[10] the appearance of herpes zoster in patients in complete remission after treatment for Hodgkin's disease may reflect suppression of the immune system and, therefore, be an indication of recurrent disease. The purpose of this study is to determine how often posttreatment herpes zoster indicates disease relapse in patients treated for Hodgkin's disease and to determine if the site of herpes zoster correlates with the site of disease recurrence.

## MATERIALS AND METHODS

From January, 1968 through Dec. 31, 1972, 195 patients with the diagnosis of Hodgkin's disease were seen at the Mallinckrodt Institute of Radiology. Forty-four of these were seen in consultation only. In an additional six cases, the diagnosis was not confirmed on review of the histologic specimens. These 50 cases have been excluded from the study.

The radiation therapy charts of the remaining 145 patients were reviewed for evidence of herpes zoster infection after the initial evaluation. The diagnosis of herpes zoster was made on clinical evidence of the typical vesicular eruption in a lermatome distribution. All patients were staged etrospectively according to the Ann Arbor lassification.[11] An analysis of failures after prinary radiation treatment in the 116 patients in tages I, II and III-A has recently been published lsewhere.[12] All patients were followed for a ninimum of 36 months.

## ESULTS

### *ncidence and Dermatome Distribution*

Eighteen of the 145 patients (12%) developed erpes zoster at some time during the interval etween initial evaluation and the time of review. n 17, the vesicular rash was localized to one or several contiguous dermatomes; one patient had disseminated skin involvement. The distribution of the involved dermatomes is seen in Table 1. In all 17 patients with localized herpes zoster, the dorsal root ganglion of the involved dermatome was within the irradiated volume, and in 13 patients, there was tumor involvement in that region at the time of initial presentation.

### *Population Parameters*

Fig. 1 shows the age distribution of both the total population and that subgroup developing herpes zoster. The highest incidence by stage of disease was 37% (nine of 24 patients) in stage III (Table 2). The histologic type in 15 of the 18 patients developing herpes zoster was nodular

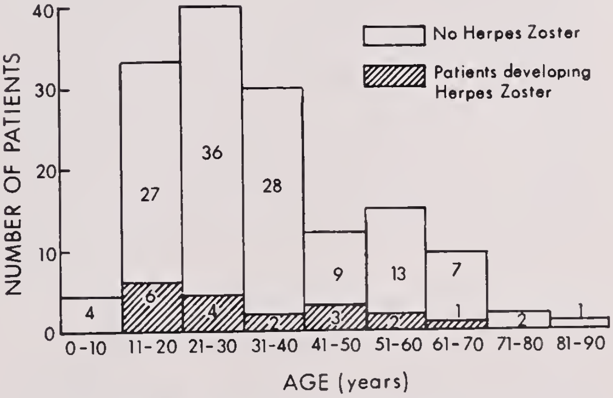

**Fig. 1** Age distribution: shaded areas represent those patients who developed herpes zoster.

TABLE 1
DERMATOME DISTRIBUTION OF HERPES ZOSTER

| | |
|---|---|
| Cervical | 4 |
| $T_{1-6}$ | 5 |
| $T_{7-12}$ | 3 |
| Lumbar | 5 |
| Generalized | 1 |
| Total | 18 |

TABLE 2
COMPARABILITY STATISTICS FOR TOTAL POPULATION TREATED FOR HODGKIN'S DISEASE AND POPULATION DEVELOPING HERPES ZOSTER

| | Total Population | Patients Developing Herpes Zoster |
|---|---|---|
| Sex (male : female) | 73 : 72 | 7 : 11 |
| Median age at diagnosis of Hodgkin's disease | 29 | 24 |
| Stage | | |
| I | 25 (17) | 1 |
| II | 67 (46) | 7 (39) |
| III | 24 (17) | 9 (50) |
| IV | 29 (20) | 1 |
| Total | 145 (100) | 18 |
| Histology | | |
| Lymphocytic predominance | 12 (8) | 1 |
| Nodular sclerosis | 97 (67) | 15 (83) |
| Mixed cellularity | 29 (20) | 2 |
| Lymphocytic depletion | 7 (5) | |
| Extent of radiation | | |
| Local fields | 77 (53) | 2 |
| Extended fields | 46 (32) | 8 (44) |
| Total nodal | 22 (15) | 8 (44) |
| Splenectomy | 67 (46) | 8 (44) |

* Number in parenthesis = %

sclerosis. The incidence of herpes zoster increased with the volume of tissue irradiated; eight of the 22 patients (36%) who received total nodal irradiation (TNI) developed herpes zoster.

During the study period, staging laparotomies were introduced (1969) and gradually increased in frequency. The incidence of herpes zoster was no different between splenectomized and nonsplenectomized patients. Herpes zoster occurred in 12% (8/67) of the splenectomized group and in 13% (10/78) of the nonsplenectomized patients.

### *Sequence and Intervals*

Table 3 shows the time and sequence relationships between the initial diagnosis of Hodgkin's disease and subsequent recurrence or diagnosis of herpes zoster. Eight patients developed herpes zoster after radiation treatment (median interval 8.5 months) and have not subsequently developed tumor recurrence. In six patients, tumor recurred before the development of herpes zoster; all six were either receiving or had recently completed chemotherapy treatment at the time herpes zoster appeared. Three patients developed herpes zoster prior to tumor recurrence.

## Discussion

The age distribution of the 18 patients with herpes zoster was similar to the total population distribution. Weller[9] reported a higher incidence in patients over age 45, but we found no such correlation in the present series (<45 years : 14/115 = 12.2%, >45 years : 4/30 = 13.3%). The incidence of herpes zoster by sex varies considerably in the reported series. Monfardini[13] found a 17% incidence in both males and females, while Schimpff[14] reported 37% in females and only 7% in males. In this series, seven of 73 males (9.6%) and 11 of 72 females (15.3%) developed herpes zoster.

Herpes zoster is known to be caused by the same virus that causes varicella,[15, 16] an infection which most adults have experienced. The incidence of varicella in the United States Army during World War II was 0.5/1000/year.[17] Herpes zoster infection is a manifestation of reactivation or reinfection by the varicella-herpes zoster virus.[5, 9] The serologic response to herpes zoster infection is the anamnestic type, consistent with previous exposure.[10] The virus lies latent in the dorsal root ganglion and then is reactivated.[7, 18, 19]

If herpes zoster is a result of an acute infection, then a seasonal variation in incidence could be expected, as seen with varicella. Although this has been reported,[7] usually no such variation has been noted[6, 10] and it was not seen in the present series.

The reported incidence of herpes zoster in the general population is between 0.5% and 2%.[20-22] In Hodgkin's disease, the reported incidence ranges between 8% and 52%.[3-8, 13] The reason for this increased incidence is not clear, but it may be the result of a deficient cell-mediated immune (CMI) system, a condition frequently associated with Hodgkin's disease.[23-25]

In support of this hypothesis, several studies have shown CMI deficiency to be more pronounced[4, 7, 26-29] with advanced Hodgkin's disease. In this series of patients, for stages I through III, the incidence of herpes zoster increased with increasing stage, but was not high in

TABLE 3
TEMPORAL RELATIONSHIPS BETWEEN INITIAL DIAGNOSIS OF HODGKIN'S DISEASE AND SUBSEQUENT APPEARANCE OF HERPES ZOSTER AND/OR RECURRENCE

| *# of Pts.* | *Interval (mo)* | *Diagnosis* | *Interval (mo)* | *Diagnosis* |
|---|---|---|---|---|
| 8 | 8.5 (median) | Herpes zoster | | |
| 6 | 8.5 (median) | Recurrence | 15 (median) | Herpes zoster |
| 3 | 3, 7, 26 | Herpes zoster | 13, 16, 21 | Recurrence |

Note: One patient excluded because of failure to obtain a complete remission.

stage IV. This may be due to the limited number of stage IV patients referred for radiation therapy.

Additionally, the effects of radiation therapy, chemotherapy and splenectomy on the immune status may have an important bearing on a patient's susceptibility to herpes zoster. Wilson[5] reported no correlation between the size of the radiation ports and the incidence of herpes zoster in stages I and II. However, the highest incidence (37%) was in stage III with total nodal ports. We found the same to be true in this series, with a 37% incidence in stage III and a 36% incidence with total nodal ports. Which of these two factors is the more important is impossible to tell. All patients in this series with stage III disease received TNI.

Goffinet[6, 30] reported a significant increase in incidence of herpes zoster in patients after splenectomy (22% with splenectomy, 13.3% without). A similar increased incidence was reported by Monfardini.[11] Schimpff[7, 14] did not find herpes zoster occurring more frequently after splenectomy nor did we.

Goffinet[6] reported a 12.2% incidence of herpes zoster in patients who did not receive chemotherapy, but this increased to 29% after chemotherapy. Monfardini[13] reported no increased incidence after chemotherapy, but a definite increase after splenectomy plus chemotherapy (27%). Six of the patients in the present series were either receiving or had recently completed chemotherapy at the time they developed herpes zoster.

Several authors[2, 3, 31, 32] have reported a recurrence of Hodgkin's disease in a high proportion of patients after herpes zoster infection. Wilson[5] found no prognostic significance in those cases of herpes zoster appearing within six months of completion of radiation therapy, but 10/13 patients (77%) who developed herpes zoster more than six months after treatment subsequently relapsed. In our experience, 11 patients developed herpes zoster while in complete remission and three (27%) of these subsequently relapsed (Table 3). In these three patients, the dermatome level of subsequent relapse was either adjacent to or in the same dermatome as the previous herpes zoster (Table 4), suggesting a positive correlation

TABLE 4
CORRELATION OF SITE OF PRIMARY RELAPSE WITH HERPES ZOSTER DERMATOME INVOLVEMENT

| | *Initial Involvement* | | *Herpes Zoster* | | *Primary Relapse* | |
|---|---|---|---|---|---|---|
| *Pt.* | SITE | DERMATOME LEVEL | SITE | DERMATOME LEVEL | SITE | DERMATOME LEVEL |
| 1. | Mediastinum | $T_{2-9}$ | | | Left axilla | $C_8$, $T_1$ |
| | Right supraclavicular nodes | $C_{4,5}$ | Left shoulder | $C_{4,5,6}$ | | |
| 2. | Left cervical nodes | $C_{4,5}$ | | | | |
| | Left axillary nodes | $C_8$, $T_1$ | | | | |
| | Right cervical nodes | $C_{4,5}$ | | | | |
| | Hilar nodes | $T_{5,6}$ | | | | |
| | Paraortic nodes | $T_9$-$L_3$ | Anterior abdominal wall | $T_{10,11,12}$ | Paraortic nodes | $T_{10}$-$L_4$ |
| | Spleen | $T_{8,9}$ | | | | |
| 3. | Bilateral cervical nodes | $C_{4,5}$ | Left shoulder | $C_{4,5,6}$ | Left upper jugular node | $C_4$ |
| | Left axillary nodes | $C_8$, $T_1$ | Left forearm | $C_{7,8}$ $T_1$ | | |
| | Mediastinum | $T_{2-9}$ | | | | |
| | Spleen | $T_{8,9}$ | | | | |
| | Splenic hilar nodes | $T_{8,9}$ | | | | |

between the localization of herpes zoster and the recurrence of Hodgkin's disease. Williams[32] found a correlation of the two sites in 68% of patients studied. Wilson[5] reported 5/31 (16%) recurrences in the dermatome level involved.

Aisenberg[33] and Sokal[34] have reported evidence of restoration of normal CMI reactivity after successful therapy for Hodgkin's disease and a subsequent long period of inactivity. Ruckdeschel[35] has reported a decreased in vitro lymphocyte responsiveness to a membrane-associated varicella-herpes zoster antigen in two of six patients with untreated Hodgkin's disease (all stage II, nodular sclerosis), in each of five patients tested within six months of primary therapy for Hodgkin's disease and in four of 11 patients in remission for more than one year.

In conclusion, it seems likely that the increased incidence of herpes zoster in Hodgkin's disease is related to a deficient immune system which may recover after successful treatment for Hodgkin's disease. The appearance of herpes zoster in a patient in complete remission does not indicate recurrent Hodgkin's disease in most instances, but it may reflect a persistent immune deficiency.

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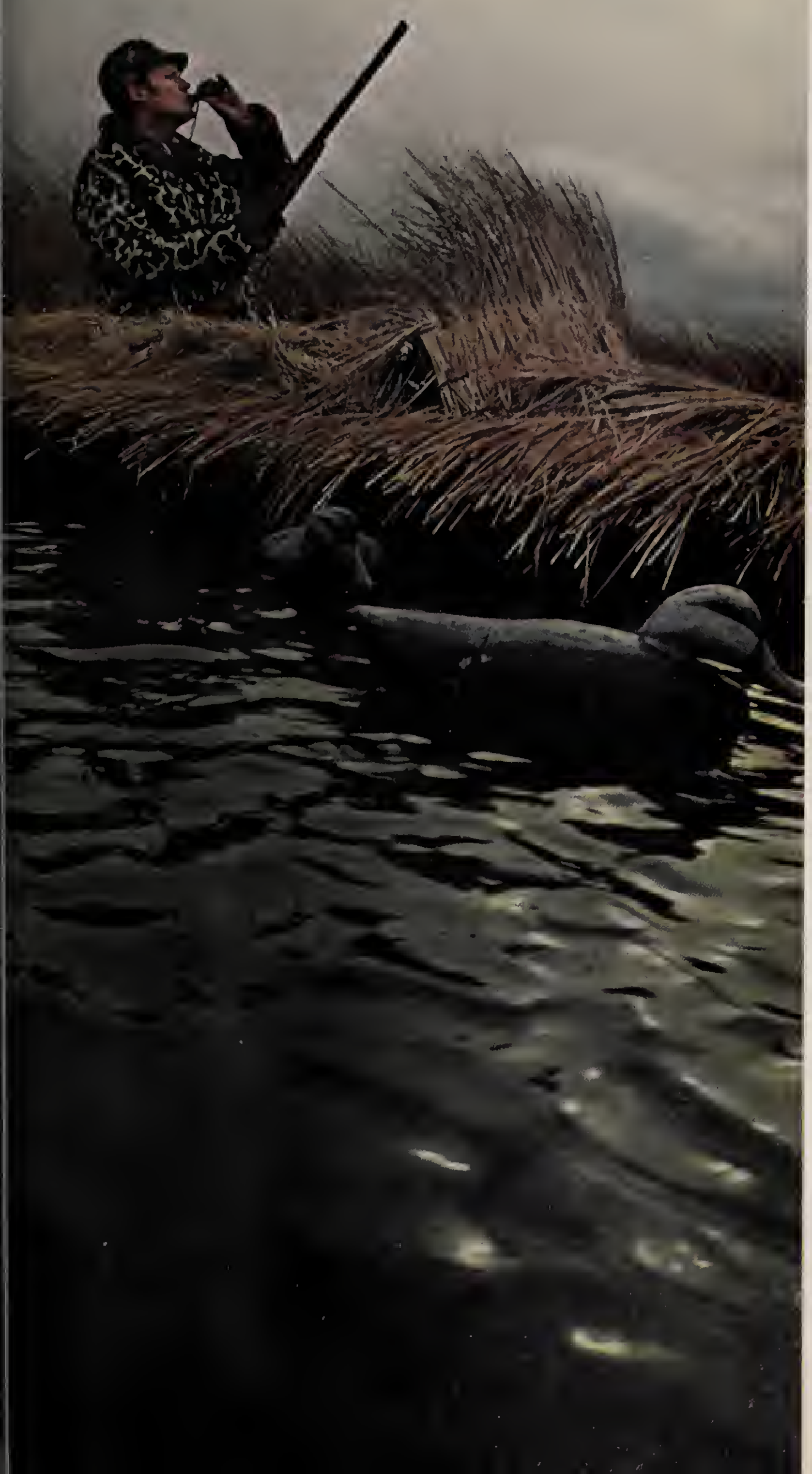
Richard A. Sutter, M.D. of St. Louis, a leader in occupational medicine in the United States for more than 30 years, was the guest speaker and consultant to the OH FOR WORK Conference sponsored by the Occupational Health Safety Division of Alberta Labour in Edmonton, Alberta, Canada on October 17. His subject was "An American Solution: Occupational Health Services for 1,500 Small Industries." Of particular interest to small business and industrial management in Canada, participants in the conference included Canadian business leaders, industry, labor and health professionals.

# This asthmatic isn't worried about his next breath...



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**Indications:** For the symptomatic relief of bronchospastic conditions such as bronchial asthma, chronic bronchitis, and pulmonary emphysema.
**Warnings:** Do not administer more frequently than every 6 hours, or within 12 hours after rectal dose of any preparation containing theophylline or aminophylline. Do not give other compounds containing xanthine derivatives concurrently.
**Precautions:** Use with caution in patients with cardiac disease, hepatic or renal impairment. Concurrent administration with certain antibiotics, i.e. clindomycin, erythromycin, troleandomycin, may result in higher serum levels of theophylline. Plasma prothrombin and factor V may increase, but any clinical effect is likely to be small. Metabolites of guaifenesin may contribute to increased urinary 5-hydroxyindoleacetic acid readings, when determined with nitrosonaphtol reagent. Safe use in pregnancy has not been established. Use in case of pregnancy only when clearly needed.
**Adverse Reactions:** Theophylline may exert some stimulating effect on the central nervous system. Its administration may cause local irritation of the gastric mucosa, with possible gastric discomfort, nausea, and vomiting. The frequency of adverse reactions is related to the serum theophylline level and is not usually a problem at serum theophylline levels below 20 $\mu g/ml$.
**How Supplied:** Capsules in bottles of 100 and 1000 and unit-dose packs of 100; Elixir in bottles of 1 pint and 1 gallon.
See package insert for complete prescribing information.

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# MSMA Auxiliary

## 911

Although "911" might sound like a new phone number, the concept of a three-digit emergency call system has been around for quite a while. Scotland Yard started such a system some 40 years ago.

Ten years ago, the President of the United States, the Commission on Law Enforcement and the Federal Communications Commission advocated establishing an emergency call system on a nationwide basis. That same year, the American Telephone and Telegraph Company stated that it would make a single emergency number available for this system.

Mrs. A. J. Campbell
President

Since then, some 800 communities across the country have planned or implemented a 911 system. It is operating in large cities, such as Boston, Detroit and New York, and also is in operation in several communities in our own state.

What is 911? The simple, three-digit 911 number can give every citizen direct access to an emergency answering center. The benefits are many and include the following:

There is only one number for everyone to remember. It's an easy one. In times of stress, even a simple, well-known seven-digit number can be forgotten.

The 911 number is easy to dial. It gives faster access to emergency services. The positions of the numbers *nine and one* can be found easily on either dial or touch phones. The possibility of misdialing is almost eliminated.

This number can be a lifesaver for travelers and new residents. Visitors and new residents in town will automatically know the fastest way to get help in an emergency.

Trained personnel answer 911 calls. They know how to obtain accurate and complete information from persons who may have difficulty communicating their request for assistance because of the emergency situation.

The Missouri State Medical Association Auxiliary believes that the establishment of the 911 emergency number on a statewide basis would provide a great community service to everyone in our state. Therefore, we are now investigating ways in which the Auxiliary can help to hasten implementation of the number throughout the state.

We will appreciate any suggestions you may have as physicians. Please send yours to Mrs. Charles Workman, 6609 Milhaven Dr., Shawnee Mission, Kan. 66202 or to me, Mrs. A. J. Campbell, 1500 West 16th, Sedalia 65301.

# EDITORIAL

## LAWS ARE WRITTEN BY CANDIDATES WHO WIN ELECTIONS

Fall is here, and with it this year comes the bi-annual politicking, which is as predictable as the football season and as productive of flourishes and promises as the winter is of snow (although the products of the political oratory may be browner and of a more pungent aroma).

As citizens, as well as physicians concerned about the health of our patients, we have a special obligation to participate in the political process. Occasionally, some of us may have the opportunity to run for office. All of us have the chance to contribute to candidates of our choice, and many of us can, without intruding into the doctor/physician relationship, actively support particular candidates and positions.

Sometimes, it is hard for us to distinguish our personal economic interests and social prejudices from other factors in the endorsement of particular candidates. That is why I am making a plea for physicians to engage in some pragmatic political activity. Although it might please our ego and satisfy a certain need for martyrdom to flamboyantly support a candidate who is sure to lose, the interests of our patients and of the medical profession may be better served by our establishing credibility with the candidates who have a chance of winning. Laws, after all, are written by men who win elections, and each family physician in Missouri has a particularly good opportunity to get to know his legislators, to support them in their election and, thereby, to be able to discuss with them the medical implications of subsequent legislative decisions.

By establishing credibility with the legislators and by showing them that our interests are always in better health care for Missourians, we can directly affect important legislation in Jefferson City and in Washington, D. C. On a state level, we can help thwart the constant pressure for expansion of chiropractic, can encourage support for family practice education and can demand fair funding for the treatment of medicaid patients. On a national level, for instance, national health insurance can be resisted, bureaucratic strangulation of medical practice opposed, effective drug laws promoted and fair regulations and reimbursements supported.

So, between now and November, if you haven't already, meet the candidates for the State House of Representatives, State Senate and National House of Representatives in your area. Let them know of your interest in them as individuals and in their political philosophies especially related to health care issues. It may be more important to convince a candidate who is more politically "liberal" than you of your sincerity and knowledge about health care issues and of your willingness to share this sincere knowledge with him than it is to mutually reinforce your consensus with a candidate who is unlikely to win.

So, get to know the candidates. Convince them of your concern for the health care of Missourians and give verbal, tactical and financial support to the candidates who by winning are likely to be able to implement your ideas.

You'll find that politicians are interesting and often are powerful people. Dialogue with an effective politician can be educational and stimulating. Sometimes, it is hard for us to forego our medical authority and dogmatism, but a discussion of the reasons for supporting or opposing particular legislation can be much more effective with legislators who recognize your contribution to their success.

CHARLES W. CHASTAIN, M.D.
President, Missouri Academy of Family Physicians

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# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D.,
EXCELSIOR SPRINGS

### Buchanan County Medical Society

The annual election meeting of the Buchanan County Medical Society was held on September 11 at the Swiss Chalet in St. Joseph.

Officers named to head the society in 1979 are Dr. R. Philip Acuff, president-elect; Dr. Gary A. Dyer, vice-president; Dr. Robert R. Stuber, secretary; and Dr. Eugene G. Wolanski, treasurer. Dr. Edward M. Stevens was elected to the Board of Censors.

Dr. Wallace McDonald and Dr. Ernest E. Wadlow were chosen as MSMA delegates. Alternate delegates elected were Drs. Edward M. Beheler, G. Tyson Carpenter, Gerald E. Fox, Berwyn H. Moen, Caryl A. Potter, Jr. and Joseph R. Prokop.

Dr. Joe S. Gunter was named to the Committee on Public Policy. Dr. Robert B. Bristow was elected to the Board of Trustees.

Dr. Edmund W. Kline, president of the Society, was elected to the Executive Secretary Committee.

The newly elected officers and Dr. Carl K. Ness, president-elect for 1978, will be installed at the annual dinner in December.

Dr. Gordon C. Sharp, professor of medicine and director of the Division of Immunology and Rheumatology at the University of Missouri-Columbia, discussed "Recent Advances in the Serological Diagnosis of Collagen Vascular Disorders." Dr. Sharp was in St. Joseph to participate in a weekend "Arthritis Awareness" program promoted by the recently established community Arthritis Center.

R. Philip Acuff, M.D., *Secretary*

## SECOND DISTRICT

COUNCILOR
JOHN H. WALTERSCHEID, M.D.,
HANNIBAL

### Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular monthly meeting on September 14 in the Library Conference Room at Woodland Hospital in Moberly. Dr. Robert V. Tompson, president, presided.

Those attending were Drs. Antonio Aquilera, C. C. Cohrs, W. D. Chute, T. S. Fleming, J. Will Fleming, Jr., L. E. Huber, H. T. Lin, C. H. Lin, and R. V. Tompson of Moberly; F. A. Barnett of Paris; J. E. Campbell, D. E. Eggleston and D. S. Shin of Macon.

Mr. Jim Culpepper, the new administrator for Woodland Hospital, gave a presentation on the future for the hospital situation for North Central Missouri. He stated that it is hoped that the application made by the Adventist Health Service, Inc. for the 110-bed facility on Highway 63, which will be called the "Moberly Regional Medical Center," will be completed in 20 months as well as that for the facility for 20 or more physicians adjacent to the hospital. The latter would be a facility for medicine, surgery, obstetrics, gynecology, pediatrics, genitourinary and other health services.

Dr. F. A. Barnett, program chairman, introduced Dr. Jack Curtis, cardiac surgeon, who recently joined the faculty at the University of Missouri-Columbia Medical Center. Dr. Curtis is from the Mayo Clinic. He presented a series of slides showing the length of life of people with coronary heart disease and the benefits of coronary bypass surgery when indicated.

Dr. Richard Martin, chief of cardiology at the Medical Center, spoke in confirmation of Dr. Curtis's statements. He also showed slides of the new Cardiology-Catheterization Laboratory at the Medical Center.

The third guest present was Mrs. Joyce Kays of the Development Office at the Medical Center.

After a question-and-answer period, the meeting was adjourned at 8:30 pm.

J. Will Fleming, Jr., M.D.,
*Acting Secretary*

## TENTH DISTRICT

COUNCILOR
EUGENE T. HANSBROUGH, M.D.,
POPLAR BLUFF

### Mineral Area Medical Society

The Mineral Area Medical Society held a dinner meeting for members and their wives on April 20 at the Terre Du Lac Country Club.

After introduction of the president, Dr. Jack Mullen, the dinner was served.

The program was presented by Doctor Joy of St. Louis University School of Medicine who discussed depression.

The attendance included 14 physicians, 11 wives, Doctor Joy and two representatives from McNeil Laboratories.

Dr. H. Dennis Dierker arranged for the meeting.

WALTER C. GRAY, M.D., *Secretary*

# In Memoriam

**Gaspare Sciortino,** M.D., 550 Coeur Deroyale Dr., St. Louis 63141; a graduate of the Royal University of Naples, 1925; member of St. Louis Medical Society; age 79; died July 28, 1978.

**John Pierre Ferrara,** M.D., 15637 Heathercraft, Chesterfield 63017; a graduate of St. Louis University, 1931; member of St. Louis County Medical Society; age 76; died July 30, 1978.

**Ramond J. Brennan,** M.D., Elmdale Rd., Chillicothe 64601; a graduate of Creighton University, 1922; member of Grand River County Medical Society; age 83; died Aug. 10, 1978.

**Herbert C. Senne,** M.D., 223 North 7th, St. Joseph 64501; a graduate of Washington University, 1939; member of Buchanan County Medical Society; age 68; died Aug. 17, 1978.

**Florian Louis Harms,** M.D., 508 East 4th, Salisbury 65281; a graduate of Washington University, 1929; member of Chariton-Macon-Monroe-Randolph County Medical Society; age 75; died Aug. 29, 1978.

**Charles F. Cain,** M.D., 400 Carleton, Caruthersville 63830; a graduate of St. Louis University, 1930; member of Pemiscot County Medical Society; age 75; died Sept. 1, 1978.

**David N. Kerr,** M.D., 6939 Pershing Ave., St. Louis 63130; a graduate of Washington University, 1941; member of St. Louis Medical Society; age 62; died Sept. 30, 1978.

**Tenuate® Ⓒ**
(diethylpropion hydrochloride NF)

**Tenuate Dospan®**
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION
Brief Summary

**INDICATION**: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

**CONTRAINDICATIONS**: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

**WARNINGS**: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence*. Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.

**PRECAUTIONS**: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

**ADVERSE REACTIONS**: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema. *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

**DOSAGE AND ADMINISTRATION**: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

**OVERDOSAGE**: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

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*Direct Medical Inquiries to.*
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References: 1. Citations available on request—Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M.: A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.

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# Whether overweight is a complicating factor... or just uncomplicated overweight.

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## (diethylpropion hydrochloride NF)

**75 mg. controlled-release tablets**

### A useful short-term adjunct in an indicated weight loss program.

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with hypertension, symptomatic cardiovascular disease, or diabetes. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. (Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on the opposite page.)

### In uncomplicated obesity.

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

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The anorexic effectiveness of diethylpropion hydrochloride is well documented. No less than 16 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorexic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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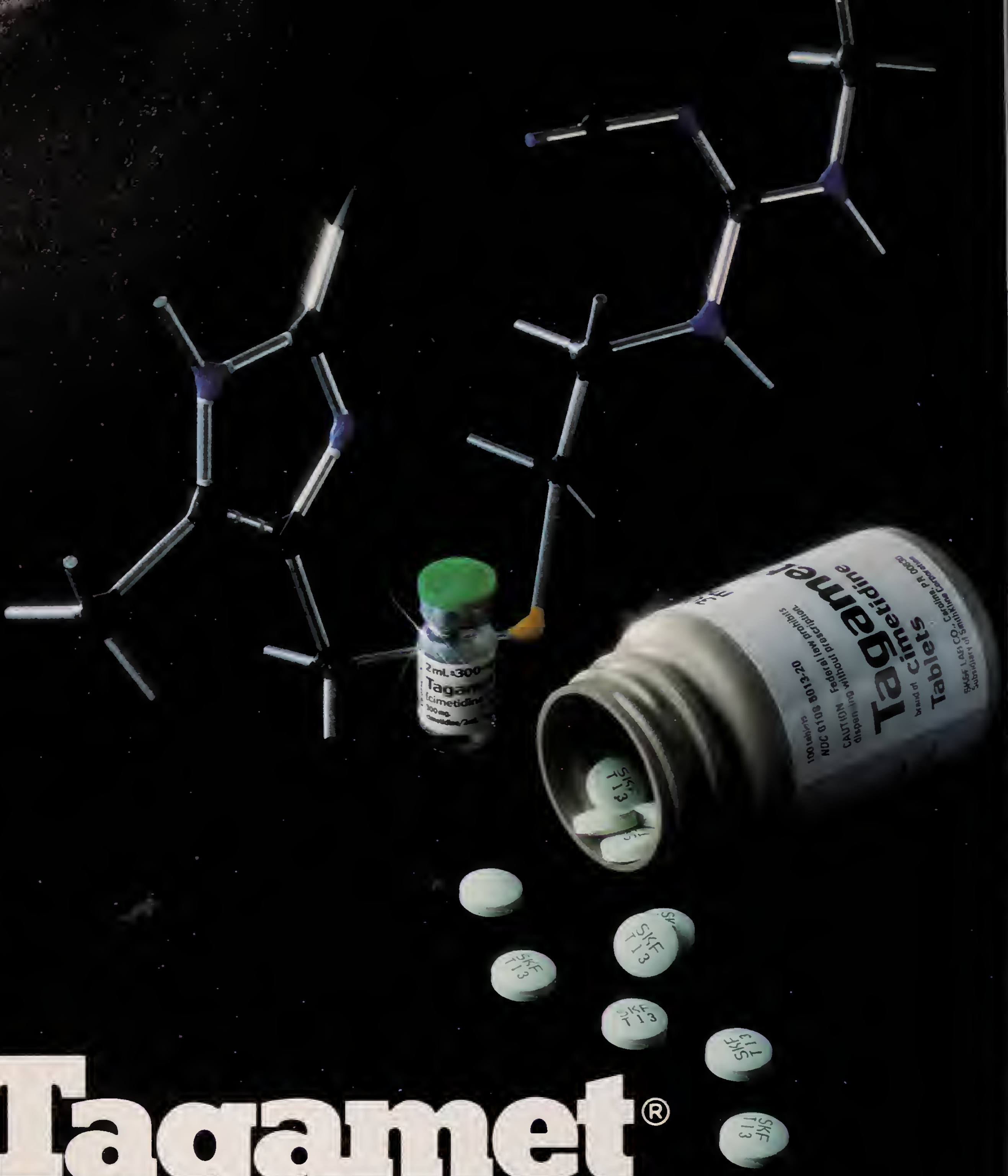
For prescribing information see opposite page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# New Members

**James John Deckert,** M.D., Rt. 3, California 65018, has become a member of Cole County Medical Society. Dr. Deckert is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at the University of Missouri in 1975. He specializes in family practice.

**Ralph T. Earp,** M.D., 701 W. High, Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Earp is a native of St. Louis, received his preliminary education at Holy Cross College and his M.D. degree at the University of Missouri in 1974. He specializes in internal medicine.

**William Harold Huffaker,** M.D., 1245 Graham Rd., Florissant 63031, has become a member of St. Charles-Lincoln Medical Society. Dr. Huffaker is a native of Fort Madison, Ia., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1970. He specializes in plastic surgery.

**Charles Jay Landsbaum,** M.D., 701 W. High, Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Landsbaum is a native of St. Louis, received his preliminary education at St. Louis College and his M.D. degree at the University of Missouri in 1970. He specializes in internal medicine and gastroenterology.

**Gerard Van Leeuwen,** M.D., Broadway State Office Bldg., P. O. Box 570, Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Leeuwen is a native of Hull, Ia., received his preliminary education at Calvin College and his M.D. degree at the University of Iowa in 1954. He specializes in pediatrics.

**John B. Lester,** M.D., 4706 Broadway, Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Lester is a native of Topeka, Kan., received his preliminary education at Washburn University and his M.D. degree at Kansas University in 1970. He specializes in psyhiatry.

**Munikumar H. Patel,** M.D., 751 East 63rd, Kansas City 64110, has become a member of ackson County Medical Society. Dr. Patel is a ative of India, received his preliminary education at the University of Baroda and his M.D. degree at Baroda Medical College in 1971. He specializes in psychiatry.

**H. Enrique Piedra,** M.D., Barton County Memorial Hospital, Lamar 64759, has become a member of Barton County Medical Society. Dr. Enrique is a native of Cuenca, Ecuador, received his preliminary education at the University of Cuenca and his M.D. degree at the University of Cuenca in 1971. He specializes in general practice.

**Michele K. R. Rivera,** M.D., Lakeside Hospital, 8701 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Rivera is a native of New York, N. Y., received his preliminary education at Wayne State University and his M.D. degree at Wayne State University in 1970. He specializes in pathology.

**Brian William Stufflebam,** M.D., 2850 West Clay, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Stufflebam is a native of St. Joseph, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1975. He specializes in internal medicine.

**William John Sullivan,** M.D., 27 Mackenzie Dr., Ft. Leonard Wood 65473, has become a member of Mid-Missouri County Medical Society. Dr. Sullivan is a native of Wisconsin Rapids, Wis., received his preliminary education at the University of Wisconsin and his M.D. degree at the Medical College of Wisconsin in 1974. He specializes in psychiatry.

**Frederick L. Thompson,** M.D., 900 S. Adams, Nevada 64772, has become a member of West Central Missouri County Medical Society. Dr. Thompson is a native of Falfurrias, Tex., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1974. He specializes in family practice.

**James Joseph Weiss,** M.D., 1505 Southwest Blvd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Weiss is a native of Perryville, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1975. He specializes in family practice.

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Send curriculum vitae and resume of experience, name and addresses of three references or request for more information to: Judge Kenton Askren, Chairman, Search Committee, c/o Mrs. Anna Mae Bledsue, P.O. Box 687, Jefferson City, Missouri 65102.

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OSITION WANTED — Diagnostic radiologist, American orn, educated and trained. Qualified in general diagnosis, ngiography, CT scanning, ultrasound and nuclear nedicine. Passed written and physics, eligible for oral boards une, 1979. Available July 1, 1979. Please reply to Baptist ledical Center, Oklahoma, Department of Radiology, P.O. ox 100, Oklahoma City, Oklahoma 73112.

ESEARCH ASSOCIATE — Opportunity for physician ith two years' postgraduate training, one year of which must e in Hematology and Hematological Pathology to assume ll-time position in the Hematology Department at $14,500 er year. Will be responsible for isolation and purification of uman blood cells and monocell protein. Interested candiates should send CV to Mr. David Nations, Personnel epartment, The Jewish Hospital of St. Louis, 216 S. Kingsighway, St. Louis, MO 63110.

FAMILY PRACTICE — Solo Board Certified family practitioner is seeking a family practice associate in growing community 6 miles north of Kansas City International Airport. Contact, Carl M. Myers, M.D., Platte Medical Clinic, Platte City, Mo. 64079. (816) 431-2200.

OTOLARYNGOLOGY INSTRUMENTS AND EQUIPMENT — For sale due to sudden death. Includes standard examining table, instrument cabinets, middle-ear analyzers, laryngoscopic and bronchoscopic instruments as well as some office equipment. In excellent condition. Many purchased within the past year. For complete list and prices, write to Box CA-447, Missouri State Medical Association, 113 Madison, Jefferson City, Mo. 65102.

OPPORTUNITY IN FAMILY PRACTICE — Two Board certified family physicians need third physician. New office connected to new hospital (250 beds) with all ancillary and specialized services available. Any interested physicians please send curriculum vitae to Link, Chapman & Associates, Inc., 1515 West Truman Road, Independence, MO 64050 or call collect (816) 836-8200 from 9 AM to 4:30 PM.

LOCUM TENENS-EMERGENCY MEDICINE—Available in our 100 hospitals; monthly scheduling is flexible and according to your preferences; malpractice is paid. excellent hourly income according to your flexibility and hours worked. Call 314-878-2280, Ext. 220 for details.

ORTHOPEDIST — Needed for long-established multispecialty group in northwest St. Louis County. Locums Tenens considered. Forward curriculum vitae to Glenn W. Kelley, Administrator, Medical Center of Florissant, 1125 Graham Road, Florissant, MO 63031.

# *Missouri Medicine in Review*

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

Dr. E. J. Goodwin, St. Louis, secretary-editor of the Missouri State Medical Association since 1910 was relieved of his duties upon his request and was elected secretary-editor emeritus for life by the Council at a meeting in Jefferson City on August 31.

Dr. Goodwin was first identified with the MSMA in 1902 when he became associate recording secretary and official reporter for the Association. Dr. C. M. Nicholson, St. Louis, was elected recording secretary at that session which was held in St. Joseph.

In 1904, Dr. Nicholson, secretary, presented the suggestion that the transactions of the Association be printed in journal form rather than in one volume as had been done previously.

The Council decided upon this form of publication, and the first issue of *The Journal of the Missouri State Medical Association* was published in July, 1904. Dr. Nicholson was made editor and chairman of the Publication Committee. Dr. Goodwin was made associate editor in 1905 and editor in 1906.

Dr. Goodwin is dean of secretaries and editors of state medical associations, having served longer in those capacities than any other man in the country.

Since the Association had no office prior to 1910, all records were kept in the office of the secretary. In 1910, an office was established at 3525 Pine Street in St. Louis, the building then occupied by the St. Louis Medical Library Society, a separate organization from the St. Louis Medical Society. In 1924, the Association moved to the Missouri Theatre Building, the first tenant after the completion of the building.

## TWENTY-FIVE YEARS AGO

The Woman's Auxiliary to the American Medical Association convened on June 1-5, 1953 at the Hotel Statler in New York City with Mrs. Ralph B. Eusden of Long Beach, Calif. president, presiding. Present were 1,109 officers, delegates and members representing 48 states, including Hawaii. Mrs. Ivy B. Priest, treasurer of the United States, was the guest speaker at the Annual Dinner. On June 4, Mrs. Leo J. Schaefer of Kansas was installed as president and Mrs. George Turner of Texas as president-elect.

At a recent AMA Golf Tourney, Delon A. Williams, M.D. of Kansas City was only two strokes behind the winner in the championship flight. As a runner-up, he took his loss philosophically but gave two reasons, "Two too many strokes."

"Because of his honesty, sincerity, intellect and profound interest in postgraduate medical education," Dr. Julius Jensen, St. Louis, will be the 1953 recipient of the American Medical Writers' Association distinguished service award "for unusual and distinguished service to the medical profession."

## TEN YEARS AGO

Five physicians, including an assistant superintendent, have been added to the staff of St. Joseph State Hospital in St. Joseph. Dr. Nicholaus Bartulica will serve as assistant superintendent. Dr. Jose Raphel will be in the Alcoholism Unit. Dr. Mario Decanini has been assigned to the Park Unit; Dr. Richard G. Bradley will be in the Buchanan County Unit; and Dr. Jose Bisquierra will be in the Jackson County Unit. Dr. Liam O'Brien is superintendent.

Dr. Lester Garfinkel, formerly of St. Louis, has joined the internal medicine staff at Ellis Fischel State Cancer Hospital in Columbia as an associate of Dr. Reginald Pugh, chief of internal medicine.

Dr. G. W. Winn has been elected to the board of directors of the Kemper State Bank in Boonville. — Dr. Edward E. Mardini, Bonne Terre, has been appointed to the Washington County Memorial Hospital staff. He also is serving on the medical staff of the Bonne Terre Hospital.

ROCHE

# For recurrent attacks of urinary tract infection in women

# Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

## Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms:** *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

**Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.**

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

**Contraindications:** Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

**Warnings:** Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

**Precautions:** Use cautiously in patients with impaired renal r hepatic function, possible folate deficiency, severe allergy or ronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may ccur. During therapy, maintain adequate fluid intake and perform requent urinalyses, with careful microscopic examination, and enal function tests, particularly where there is impaired renal unction.

**Adverse Reactions:** All major reactions to sulfonamides and rimethoprim are included, even if not reported with Bactrim. *lood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblas- ic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, ypoprothrombinemia and methemoglobinemia. *Allergic reac- ons:* Erythema multiforme, Stevens-Johnson syndrome, eneralized skin eruptions, epidermal necrolysis, urticaria, serum ickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, eriorbital edema, conjunctival and scleral injection, photosensiti- ation, arthralgia and allergic myocarditis. *Gastrointestinal reac- ons:* Glossitis, stomatitis, nausea, emesis, abdominal pains, epatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

**Dosage: Not recommended for infants less than two months of age.**

*Urinary Tract Infections:* Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

*Children two months of age or older*

| Weight | | Dose—every 12 hours | |
|---|---|---|---|
| lbs | kgs | Teaspoonfuls | Tablets |
| 20 | 9 | 1 teasp. (5 ml) | ½ tablet |
| 40 | 18 | 2 teasp. (10 ml) | 1 tablet |
| 60 | 27 | 3 teasp. (15 ml) | 1½ tablets |
| 80 | 36 | 4 teasp. (20 ml) | 2 tablets or 1 DS tablet |

For patients with renal impairment:

| Creatinine Clearance (ml/min) | Recommended Dosage Regimen |
|---|---|
| Above 30 | Usual standard regimen |
| 15-30 | ½ the usual regimen |
| Below 15 | Use not recommended |

*Pneumocystis carinii pneumonitis:* Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

**Supplied:** *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

**Please see back cover.**

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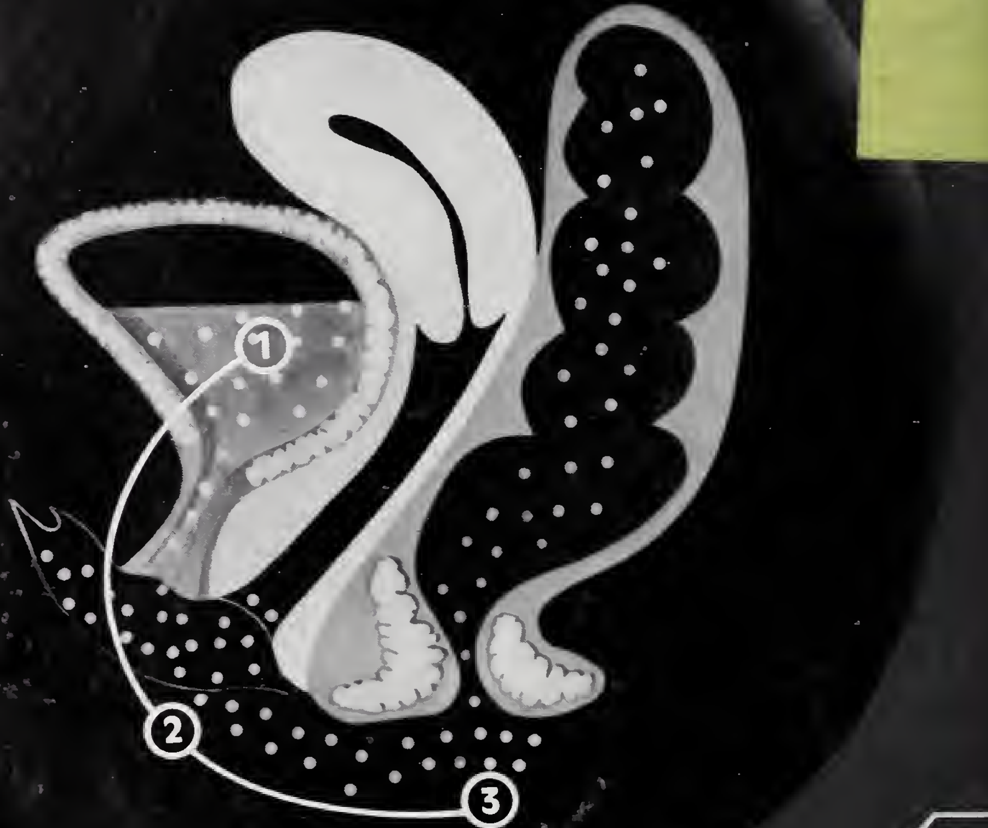
# Her next attack of cystitis may require the Bactrim™ 3-system counteratta



**ROCHE**

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enter bacteriaceae* in the bowel without the emergence of res tant organisms. Thus, Bactrim reduces the risk of intro colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

## Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal trac

Please see reverse side for summary of product information.

# Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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**NOVEMBER, 1978**

VOLUME 75, NUMBER 11

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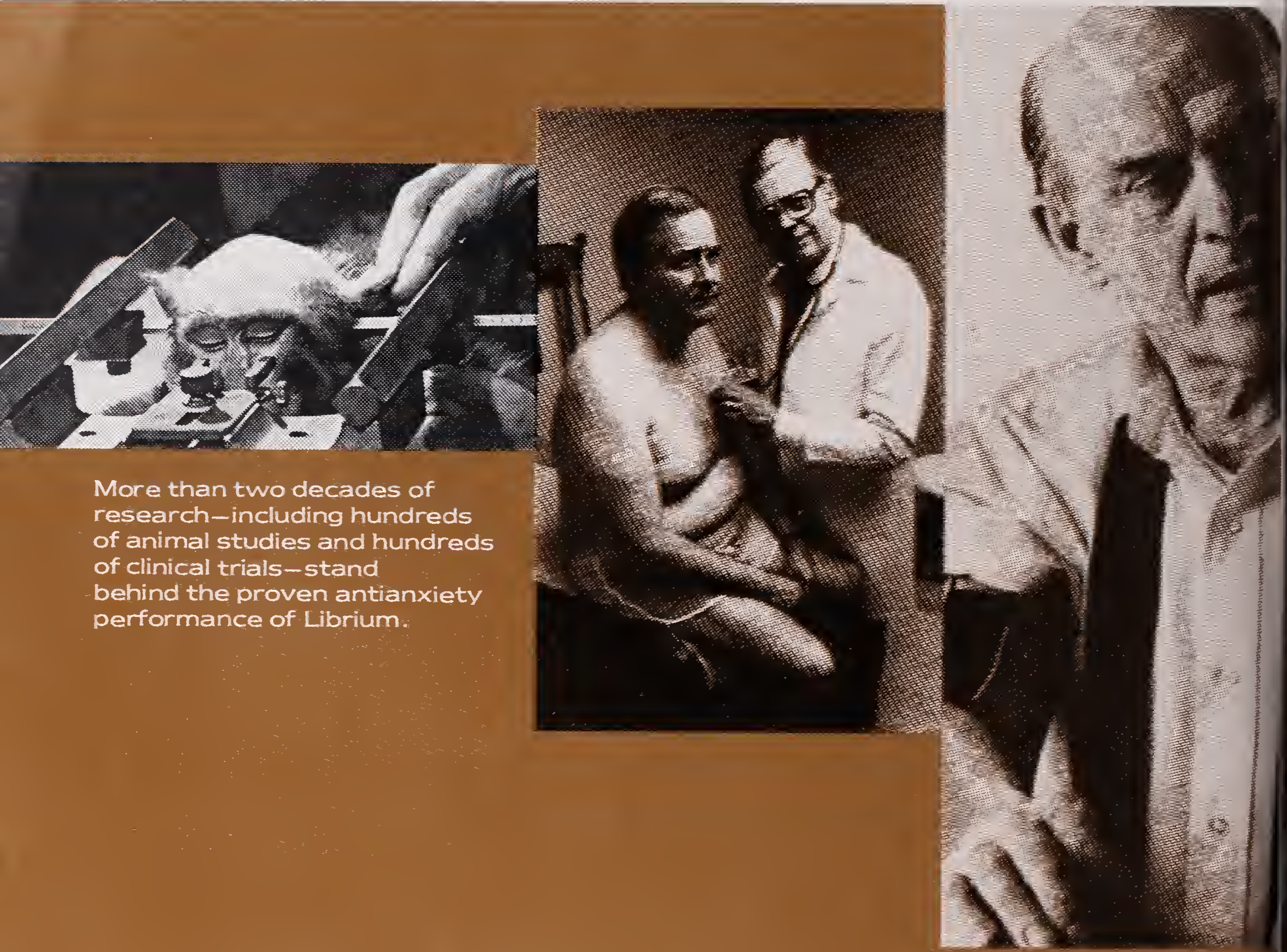
**April 19-22, 1979, St. Louis**

# Librium®... an unsurpasse
(chlordiazepoxide HCl)



More than two decades of research—including hundreds of animal studies and hundreds of clinical trials—stand behind the proven antianxiety performance of Librium.

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# afety record

What excited clinical researchers about Librium was its promise of effective antianxiety action within an unprecedented margin of safety. This promise continues to be fulfilled in millions of patients today— most likely including many of your own.

MDS

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- ☐ Proven antianxiety performance
- ☐ Minimal effect on mental acuity
- ☐ Predictable patient response
- ☐ Is used concomitantly with primary medications, such as anticholinergics and cardiovascular drugs

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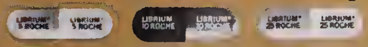

*5mg, 10mg, 25mg capsules*

***synonymous with relief of anxiety***

Please see next page for summary of product information.

**Librium**® 5mg, 10mg, 25mg capsules
*chlordiazepoxide HCl/Roche*

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

**Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Usual Daily Dosage:** Individualize for maximum beneficial effects. *Oral–Adults:* Mild and moderate anxiety and tension, 5 or 10 mg *t.i.d.* or *q.i.d.*; severe states, 20 or 25 mg *t.i.d.* or *q.i.d.* *Geriatric patients:* 5 mg *b.i.d.* to *q.i.d.* (See Precautions.)

**Supplied:** Librium® (chlordiazepoxide HCl) *Capsules*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) *Tablets*, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

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Manati, Puerto Rico 00701

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# in Brief

## A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street
Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

**AMA WITNESSES** told the Senate Human Resources Subcommittee on Health that the national health insurance plan developed by Sen. Edward Kennedy (D.-Mass.) and organized labor would result in a "federal takeover" of the health care system and would "not be in the interest of the citizens of this country." Speaking for the AMA were James H. Sammons, M.D., executive vice-president, and William C. Felch, M.D., chairman of the AMA Council on Legislation. "We do not think the American public will want its health care directed and controlled by the federal government," Dr. Felch said. "The history of federally run programs does not instill such trust and confidence as to support such action." Another witness, HEW Secretary Joseph Califano, said the plan was too costly, pointing to the $30.8 billion it would add to the federal budget by 1983. Califano said that any program "must be phased in with singular care and sensitivity to the economy, governmental budget, and the administrative complexity of the health care system."

**MEMBERS** who choose to work under contract to hospitals rather than practice on a fee-for-service basis will not be penalized, the American Society of Anesthesiologists agreed in a consent order. A Federal Trade Commission complaint charged that the society's "Guidelines for the Ethical Practice of Anesthesiology" and a "Statement of Policy" advised members that they should be compensated only on a fee-for-service basis and should not practice as salaried employees of hospitals or other organizations. The FTC said the consent agreement does not constitute an admission by the society of any law violation. Under the order, the FTC said, the ASA must delete from its files "any record of censure" against members for past failure to comply with the policy.

**A COST CONTAINMENT** checklist has been prepared for physicians. The checklist, in brochure form, lists more than 30 suggestions for physicians to consider in attempting to hold down the cost of health care in both the hospital and office setting. There is no charge for the brochure. Write to AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

BRIEF SUMMARY OF
PRESCRIBING INFORMATION

**ANTIMINTH®** (pyrantel pamoate)
**ORAL SUSPENSION**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 $\mu$g/ml) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

The drug has not been extensively studied in children under two years; therefore, in the treatment of children under the age of two years, the relative benefit/risk should be considered.

**Precautions:** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with preexisting liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg of pyrantel base/ml) should be administered in a single dose of 11 mg of pyrantel base per kg of body weight (or 5 mg/lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 ml of Antiminth per 10 lb. of body weight. (One teaspoonful=5 ml.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day, and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices.

**How Supplied.** Antiminth Oral Suspension is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg pyrantel base per ml, supplied in 60 ml bottles and Unitcups™ of 5 ml in packages of 12.

More detailed professional information available on request.

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**Antiminth®**
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equivalent to 50 mg pyrantel/ml
ORAL SUSPENSION

a drug of choice in pinworm infections

Please see brief summary of prescribing information on facing page.

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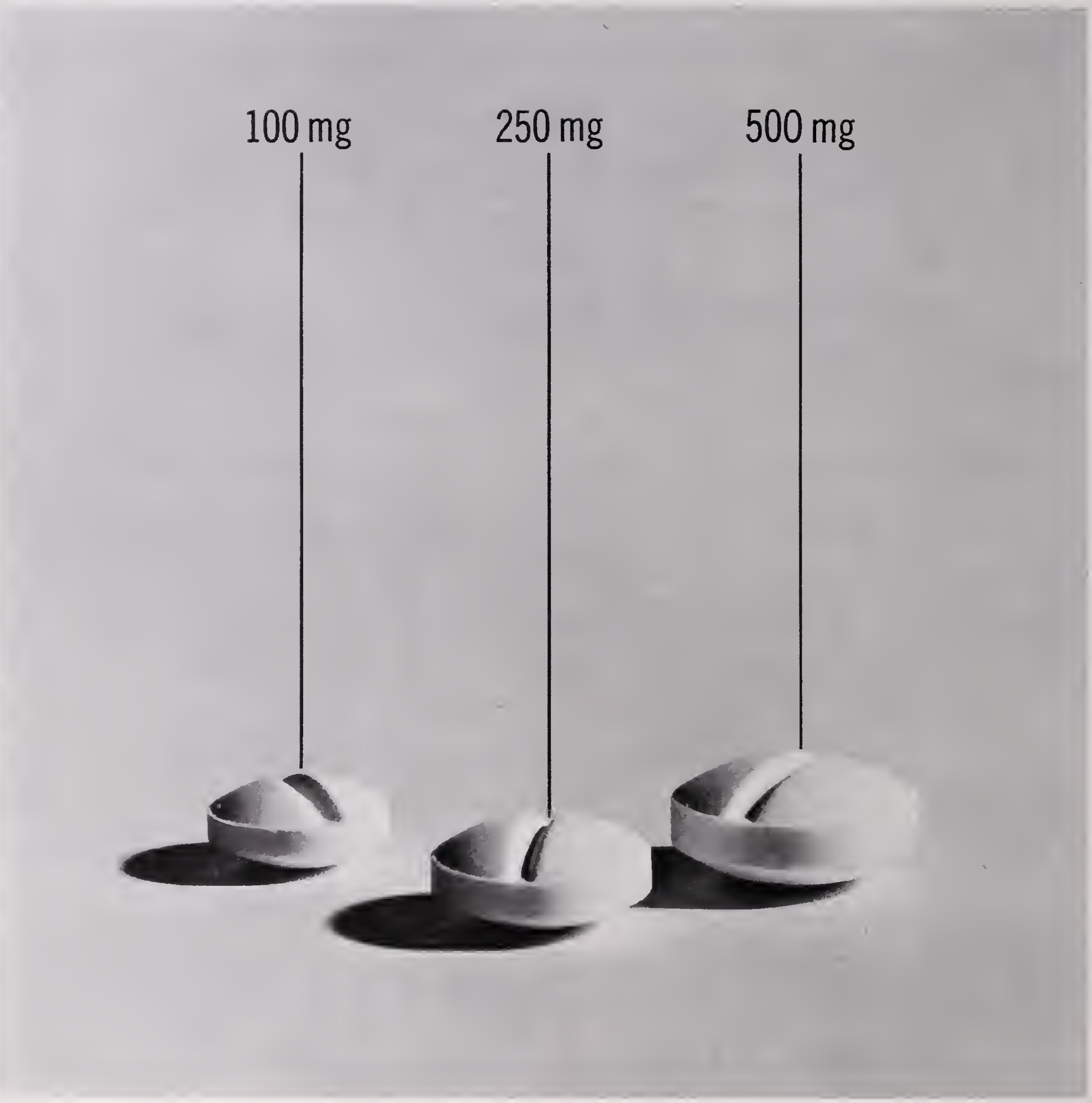
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MSMA NEWS ROUND-UP

November, 1978

# MSMA House votes to change Council

At the third Interim Session, the MSMA House of Delegates approved a proposal presented by the Council which will change the total number of members on the MSMA Council to 23.

The present District boundaries will be retained, but an additional Councilor will be allowed a District for each 400 members or portion thereof. Thus, the Council will be composed of the 18 Councilors, President, President-Elect, Past President, Secretary and Treasurer.

The Interim Session was held November 4-5, 1978 in Cape Girardeau, with 163 physicians attending. In all, the House adopted 20 resolutions and referred four.

Following are the resolutions which were adopted or referred:

### Constitution and Bylaws

- St. Louis Metropolitan Medical Society — Resolves that St. Louis County and the City of St. Louis shall constitute the MSMA Third Councilor District and that the counties of Franklin, Gasconade, Warren, Jefferson, St. Charles and Lincoln shall make up the Fourth Councilor District, effective January 1, 1979. *(adopted)*
- Reapportionment of MSMA House — Instructs the Council to formulate a plan that would assure equal representation for all members of MSMA in the House of Delegates. *(adopted)*
- Component Society Representation to the House — Referred to the Council the resolution calling for reduction of the House of Delegates to no greater than 200 members, using a percentage of MSMA members to establish the number of delegates from each society. *(referred)*
- Interim Session — Resolves that the MSMA continue the Interim Session until 1980, at which time the Interim Session is to be re-evaluated as to its practicality. *(adopted)*

### Legislation, Regulations

- Medicaid program — Resolves that the MSMA withdraw its endorsement of the Title XIX Medicaid Program. The MSMA is not encouraging withholding ervices from patients. *(adopted)*
- Medicaid Contract — Directs the MSMA to pursue egal measures intended to cause the State of Missouri o live up to the full contract with regard to Medicaid. *adopted)*
- Confidentiality — Reiterates MSMA position on omplete confidentiality for medical records and for rofessional and peer review activities and instructs he MSMA Council and AMA delegates to work toward his end. *(adopted)*
- Chiropractic Expansion — Resolves that the ISMA continue its efforts to restrict chiropractors to those practices authorized by state law and urges the Missouri Board of Healing Arts to pursue this intent. *(adopted)*
- Psychiatric care insurance — Resolves to recommend to the Governor that rules be promulgated to instruct the State Commissioner on Insurance that all health and accident insurance policies sold in Missouri provide coverage for psychiatric illnesses. *(adopted)*
- Nurse Practitioners — Resolves that the MSMA recommend that the Board of Healing Arts develop acceptable definitions of "medical practice" and "nursing practice" and that the MSMA challenge any person who is practicing medicine without a license. *(adopted)*
- H.M.O.s — Referred to the Council for study and implementation a resolution supporting passage of legislation which adopts a reasonable model H.M.O. statute. *(referred)*
- Mumps immunizations — Supports vaccinations of pre-school children against mumps and requests the Missouri General Assembly to add mumps to the list of required immunizations. *(adopted)*

### Policies

- Cost effectiveness — Endorses the call by AMA President Tom Nesbitt, M.D., for physicians to help moderate increases in medical care costs by avoiding over-utilization and by using appropriate restraints to keep fee increases more nearly in line with cost of living increases. *(adopted)*
- "Hold Harmless" clause — Opposes the implementation of the "hold harmless" clause of the Kansas City Blue Shield Plan as it pertains to non-participating physicians. *(adopted)*
- Hospices — Endorses efforts in the Missouri legislature to secure passage of legislation to utilize physician-directed hospice care. *(adopted)*
- CPR — Endorses and encourages cooperation of the Missouri Department of Education to add CPR training in public secondary schools. *(adopted)*
- House calls — Referred to the Council a resolution encouraging physicians who wish to provide high quality medical care in the home. *(referred)*

### MSMA Internal Affairs

- Medical Students — Directs the MSMA to initiate a program of inviting and sponsoring medical students to the Saturday program of its Annual Session. *(adopted)*
- Mental Health Committee — Referred to the Council the resolution calling for a committee to visit and evaluate the major mental health facilities in Missouri. *(referred)*

**(Continued on Page 4)**

# Dr. Hubert Ritter seeks re-election to AMA Board

The Missouri State Medical Association has announced the candidacy of Hubert A. Ritter, M.D., for re-election to the American Medical Association Board of Trustees.

Dr. Ritter, a board re-certified obstetrician-gynecologist in private practice in St. Louis, has served on the Board of Trustees for the past two years. He is also president of the AMA Education and Research Foundation, a program which financially assists medical students and contributes funds to medical schools and research efforts.

For many years, Dr. Ritter has shown his commitment to organized medicine on the county, state and national levels. He is a past president of St. Louis Medical Society, has been a member of the MSMA House of Delegates, and was a member of the MSMA delegation to the AMA from 1968 to 1976. Dr. Ritter is a member of the Speakers Bureau for both the AMA and the St. Louis Medical Society.

Dr. Ritter is also committed to being a teacher of medicine. He has been involved in teaching at the Department of OB-GYN at St. Louis University School of Medicine since 1955. From 1976 to 1978, Dr. Ritter served as acting chairman of the Department and he is now a clinical professor at the university.

## Auxiliaries support Foundation

There are three sources of funds that make up the funds available to students pursuing a medical career: contributions, assessments and repayments.

Contributions are a very significant source of funds to the Foundation. In the last few years there has been a noticeable decline in the contributions received. However, in 1978, the contributions received as of November 15 exceed the total contributions for 1977.

Since the inception of the Foundation, members of the MSMA Auxiliary have been very active in supporting the Foundation. Again in 1978, the Auxiliary has shown its support. Contributions made thus far this year by the county medical auxiliaries are shown below.

| | |
|---|---|
| Buchanan County Medical Society Auxiliary | $ 216.00 |
| Grand River Medical Society Auxiliary | 322.00 |
| Saline County Medical Society Auxiliary | 45.00 |
| Lafayette-Ray County Medical Society Auxiliary | 15.00 |
| Jackson County Medical Society Auxiliary | 200.00 |
| Missouri State Medical Association Auxiliary | 200.00 |
| Boone County Medical Society Auxiliary | 1,391.50 |
| Mineral Area County Medical Society Auxiliary | 149.39 |
| Greene County Medical Society Auxiliary | 100.00 |
| Clay County Medical Association Auxiliary | 890.00 |

*Dr. Ritter, speaking to a meeting of the Greene County Medical Society.*

Dr. Ritter was a member of the Missouri Medical Political Action Committee until his election to the AMA Board of Trustees. He was chairman when MMPAC won the AMPAC All-Events Award for Membership in 1973.

## MSMA to sponsor another Workshop for residents

A workshop for residents about to enter practice will be held May 3-4, 1979, at the Hilton Inn in Columbia.

The two-day workshop, "Establishing Yourself in Medical Practice," is designed to help residents more effectively: select, hire and train the best personnel; establish good telephone and appointment scheduling systems; get financing for the practice; set up the right financial systems — billing, collections and insurance; and design the most effective medical records system.

Conomikes Associates, a professional consulting practice management firm, has been conducting workshops for the past seven years. The MSMA sponsored an "Establishing Yourself in Medical Practice" workshop in May, 1978 and the physician participants felt it was a valuable experience.

For more information, please contact the MSMA, Box 1028, Jefferson City, MO 65102.

## MMPAC achieves good record in November elections

**Funds from the Missouri Medical Political Action Committee (MMPAC) proved effective in the November general elections. Many of the candidates supported by MMPAC were successful in their campaigns.**

**The breakdown in the various races in Missouri show:**

**U.S. Congress: 9 supported, 6 won — 66-2/3%**

**Missouri Senate: 16 supported, 14 won — 87-1/2%**

**Missouri House: 116 supported, 108 won — 93%**

**The post-election report of the American Medical Political Action Committee (AMPAC) shows that of the 10 candidates supported by AMPAC, 8 were elected for 80% record.**

# PR workshop - 'We have a story to tell'

Getting medicine's story to the public was the subject of the Public Relations Workshop held October 7 and 8 at Tan-Tar-A at the Lake of the Ozarks. About 40 physicians and Auxiliary members attended the conference.

Dr. Edward Annis, past president of the AMA; Barbara Chapman, associate director of the AMA Office of Public Relations; Roy Pfautch, president of Civic Service, Inc., the firm which conducted the survey for the MSMA (separate story); and Bob Priddy, director of the 66-station Missouri Network, were the featured speakers at the workshop.

Dr. Annis emphasized the need for public relations for the medical profession. "We have a story to tell and if we don't tell it, who will?" Dr. Annis said.

Both Dr. Annis and Mrs. Chapman urged physicians and Auxiliary members to work with the media at the local level. "Here is where we can get a fair hearing," Dr. Annis said. Mrs. Chapman suggested that if a positive relationship between media and medicine can be maintained at the local level, the public will not pay as much attention to unfavorable national news.

Pfautch discussed the ways the medical profession should approach the electronic media. On a legal basis, Pfautch said physicians have the right to respond to "bad press" under the Fairness Doctrine. Also, radio and television stations must allow public service time and are eager for subjects such as medicine to fill this time. And the medical profession has the right to buy their own time on the media.

Dr. Annis and Pfautch suggested ways to respond to unfavorable press about medicine. The key is to be available, said Pfautch. "If you present something to the media from the standpoint of reason, it is rare that you won't be heard," Dr. Annis said.

Priddy, as a spokesman for the press viewpoint, pointed out that media and medicine are not partners, but are not enemies either. He asked that the physicians not just talk to each other. "The public needs some explanations from you on such issues as why health costs go up," Priddy said.

# Survey shows positive physician image; however. . . .

During the 1977 Interim Session, the MSMA House of Delegates approved a public opinion survey of Missourians. Roy Pfautch, president of Civic Service, Inc., conducted the survey.

The goal was to assess the image of the physician and the health care system in Missouri. Pfautch conducted 403 in-home interviews in Missouri's 10 Congressional Districts.

The results of the survey show that the image of the physician in Missouri is strong and positive. Most of the people see the doctor as the key element in the health picture. They believe that physicians for the most part are concerned with the well-being of the people and do their best to provide top-notch medicine.

Eighty-two percent said they like their doctor and are happy with their medical care. When asked if they would put a lot of faith and confidence in their family doctor if they needed advice or help, again 82 percent said they would.

Sixty-two percent of those surveyed would support physicians in an issue conflict between doctors and the state legislature over a health matter and 17 percent would support the legislature. Forty-eight percent said they would be impressed to receive a letter from their doctor asking them to write a letter to their Congressman.

However, there are some factors which could erode the image of the physician. There are concerns about lack of personal attention, less than open treatment and cost.

The cost issue came out in the first open-ended question with 34 percent of the respondents saying the cost of health care is too high and 14 percent saying physicians' fees are too high. When given the statement, "The average doctor charges *far* more than he should," 65 percent agreed.

Sixty-two percent of those questioned feel that in many areas of Missouri there are no doctors available to serve the people. It is evident that most of those surveyed feel they have good health care, but are not sure about the rest of the State.

An interesting, but also dangerous, dichotomy showed up in the survey between the image of the doctor and the image of the system. The people expressed great confidence and trust in their doctor. However, when asked about the health care system without including the word physician in the question, the response tended to be negative.

Only 32 percent agreed that Missouri has one of the finest health and medical care systems in the U.S. Here is a possibility of pressure for change. Most of those surveyed feel that there is a need for changes, but that the health care system can be changed without threatening their doctor or themselves.

They do not fear government and do not identify it with an adverse reaction against the physician. In answer to an open-ended question about who could bring about the needed changes in the health care system, 40 percent responded "government."

## *Patients' biggest gripes*

*A national survey pinpointing patients' biggest gripes was recently conducted by the Robert Wood Johnson Foundation. The complaints most often voiced by patients are the cost of care and the time spent waiting for it.*

*The following were the prime sources of patient displeasure: 37 percent complained of out-of-pocket cost; 28 percent of waiting time in the doctor's office; 18 percent were displeased with the doctor's explanation of what was wrong; 16 percent complained about waiting time to get appointments; 16 percent about time spent with the doctor; 13 percent about amount of concern shown by the doctor; 13 percent about the quality of care; 13 percent about the cost of traveling to doctor's office and 8 percent complained about the lack of courtesy shown by the doctor.*

*It seems that many of the complaints could be handled with common sense and more communication with patients.*

# House actions

(Continued)

- Reduced Dues — Physicians who join the MSMA after leaving training programs and entering practice will be assessed at the rate of one-half the current dues for the first calendar year. *(adopted)*
- Consent calendar — Instructs the speaker of the House of Delegates to study the possibility of adopting the "consent calendar" concept for non-controversial items. *(adopted)*

**AMA**

- AMA Council on Scientific Affairs — Resolves that membership on the AMA Council on Scientific Affairs be by appointment of the Board of Trustees and instructs the Missouri delegation to the AMA to work toward this end. *(adopted)*
- Chiropractic policy — Resolves that the MSMA urge the AMA Board of Trustees to refrain and desist from taking any action which might change the Association's official policy concerning chiropractic and instructs MSMA delegates to the AMA to oppose any modification in Section 3 of the Principles of Medical Ethics. *(adopted)*
- CME accreditation — Instructs the MSMA delegates to the AMA to support the principle that the Liaison Committee on Continuing Medical Education continue the reciprocal arrangements of accreditation of state medical associations meeting accreditation standards approved by the AMA. *(adopted)*

## MSMA objects to HEW's new code for reporting medical services and procedures

The Department of Health, Education and Welfare has recently announced their endorsement of the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). They stated that this new system "will be used to coordinate statistics on health problems and health care in hospitals and similar institutional environments." It is to become effective January, 1979.

The MSMA has endorsed the Physicians' Current Procedural Terminology, Fourth Edition (CPT-4), now used in a number of states. The Association strongly urges that physicians continue to use CPT-4 for reporting medical procedures and services to all third party intermediaries.

The MSMA has voiced its objections about ICD-9-CM to General American Life Insurance Company, St. Louis Blue Shield, Kansas City Blue Cross-Blue Shield and the Missouri Division of Family Services. The main concern is whether ICD-9-CM is now mandated for use in reporting medical services and procedures for governmentally funded health care programs.

It is currently understood that ICD-9-CM is not required in the reporting of services and procedures performed by physicians and secondly, that ICD-9-CM is not mandated for use in ambulatory settings (i.e. physicians' offices).

## Mike Porter is new member of MSMA staff

Michael R. Porter joined the staff of the Missouri State Medical Association in October as the Director of Management Services. He will work with the Committee on the Impaired Physician, the Commission on Interspecialty Medicine and the medical specialty groups in Missouri.

Mike, 27, attended Westminster College and then received his B.A. degree in Communication Arts and Art History from Lindenwood College in St. Charles.

Prior to coming to the MSMA, Mike was manager and part owner of Art Alley in Jefferson City.

## *Current Procedural Terminology* film available for meetings

The American Medical Association has recently completed a film concerning medical terminology issues and demonstrating the value of Physicians' *Current Procedural Terminology*, a listing of descriptive terms and identifying codes for reporting medical services and procedures performed by physicians.

The purpose of the terminology is to provide a uniform language that will accurately designate medical, surgical and diagnostic services and will thereby provide an effective means of communication among physicians, patients and third parties.

The 17-minute film is available on a loan basis at no charge for medical society meetings and other meetings where medical terminology would be of interest to the participants. The film is accompanied by free brochures describing CPT.

It is recommended that requests for the film be made 4-6 weeks in advance of the meeting at which it will be shown.

For information, contact: Ms. Mary Pellillo, Department of Computer Systems in Medicine, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610 (312-751-6407).

## Publication available on pesticide poisonings

*Recognition and Management of Pesticide Poisonings*, a publication of the U.S. Environmental Protection Agency, is available to physicians as a reference document.

The authors of the booklet made an effort to suggest treatment measures that can be implemented (or at least initiated) in small hospitals and clinics, where victims of pesticide poisonings are likely to be received.

For a free copy of the publication, write to the United States Environmental Protection Agency, Toxics and Pesticides Branch, Region VII, 1735 Baltimore, Kansas City, MO 64108.

# Missouri State Medical Association Announces 1979 INTRAV Adventure Programs

*The Missouri State Medical Association and INTRAV are pleased to offer these outstanding travel programs in 1979. INTRAV will again be conducting Medical Seminars for Category II, CME credit on each trip. If you are interested in further details, please contact the Missouri State Medical Association office.*

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Now is the time to see Russia as she puts on her finest in preparation for the 1980 Olympics. The games will mean even more to you after your visit.

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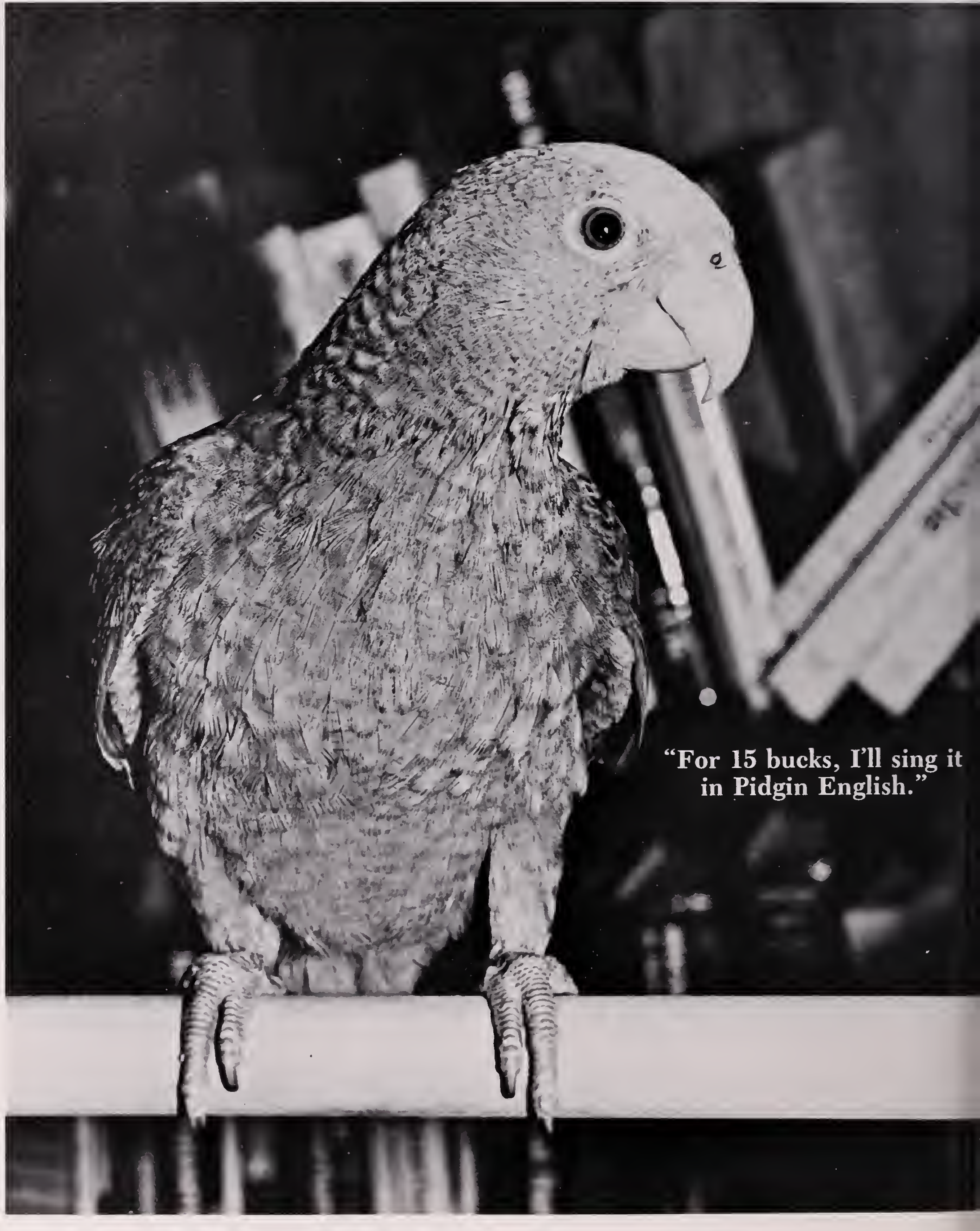
For lovers of good food, beauty, romance and joi de vivre, our European Adventure is for you . . . four days each in **Florence,** Italy; **Interlaken,** Switzerland; and **Paris,** France.

In **Florence,** statues by Donatello and Michelangelo around every corner welcome you to the city of the Renaissance. Explore masterpieces, shop on the Ponte Vecchio, enjoy pasta and pizza at the typical "trattorie" or enjoy the Old World charm of the Hotel Excelsior Italie. You can even take an optional excursion to Venice, city of gondolas, and medieval Siena.

Then, relax in **Interlaken,** at the foot of the snow-capped Jungfrau Mountain. Traditional hospitality is yours at the Grand Hotel Victoria-Jungfrau in this resort city of Alpine meadows, cuckoo clocks and soaring peaks. The accent in Interlaken is on leisure, yet you'll find as much excitement as you could want . . . day or night.

Then **Paris** . . . the Eiffel Tower, fashion houses, sidewalk cafes and the Champs Elysees. From your residence, the Hilton Hotel, roam Montparnasse for foot-long crusty breads, dine in tucked-away bistros or Michelin-starred restaurants. Evening is a sensation of lights. The floodlit Arc de Triomphe, lovers along the Seine and the Folies Bergere, all say Paris.

Photo-Comment by James W. Clawson, M.D., Springfielc



"For 15 bucks, I'll sing it in Pidgin English."

# Editor's Corner

## OH, SAY, CAN'T YOU HEAR?

In these days when the United States of America is blamed for everything from rats in New Delhi to other kinds of rats in Moscow, we should be careful of our national posture. It seems that "face" means a great deal more to all the rest of the world than to Americans. Not only do we neglect trying to put our best foot forward internationally, but it seems we don't even attempt it for ourselves.

Never has this been more apparent than in the singing of our national anthem before the thousands of people at sports events. This matter should rightly be one of embarrassment to what spirit is left in the land of the free and the home of the brave.

The decline of the "Star Spangled Banner," as I best recall, began about 15 years ago. Before that time, it seemed to be uniformly and lustily belted out by all comers. And if that admittedly difficult vocal line varied in quality from performer to performer, it was at least delivered with martial defiance and with the impression that the republic was here to stay and everybody within hearing should damn well know it.

But, during the last decade and a half, I have suffered and squirmed through innumerable indignities to the "Star Spangled Banner." I have heard it bellowed by corpulent matrons past their primes. I have heard it whined by spindly females who showed no promise of any prime at all. And, worst of all, I have heard it brayed by mod males of every stripe, dredged up from God knows where, who showed no more talent for music than a truck driver for haute cuisine.

This has occurred at high school football games where it is understandable if a member of the school board has a daughter he thinks is the next Rise Stevens. But the prominence of the event has naught to do with the quality of rendition. It may sound no better during the World Series or when the Cowboys play the Raiders.

It has been a constant surprise to me that some over-muscled behemoth with an IQ of 44, who could do no other thing than run a filling station on the swing shift and make change on his fingers, can demand, and get, $300,000 a year while $15 plus tax is grudgingly allocated for a wheezing of the "Star Spangled Banner."

Oh, well, I suppose this is what we must expect of a society in which everyone must be educated and the standards lowered until a thorough knowledge of four-letter words qualifies one for some kind of diploma. On the other hand, maybe I'm just getting older. And I probably wouldn't ever make it as a football coach.

*Finis:* Star Spangled Banner

Wilfred E. Wooldridge, M.D.

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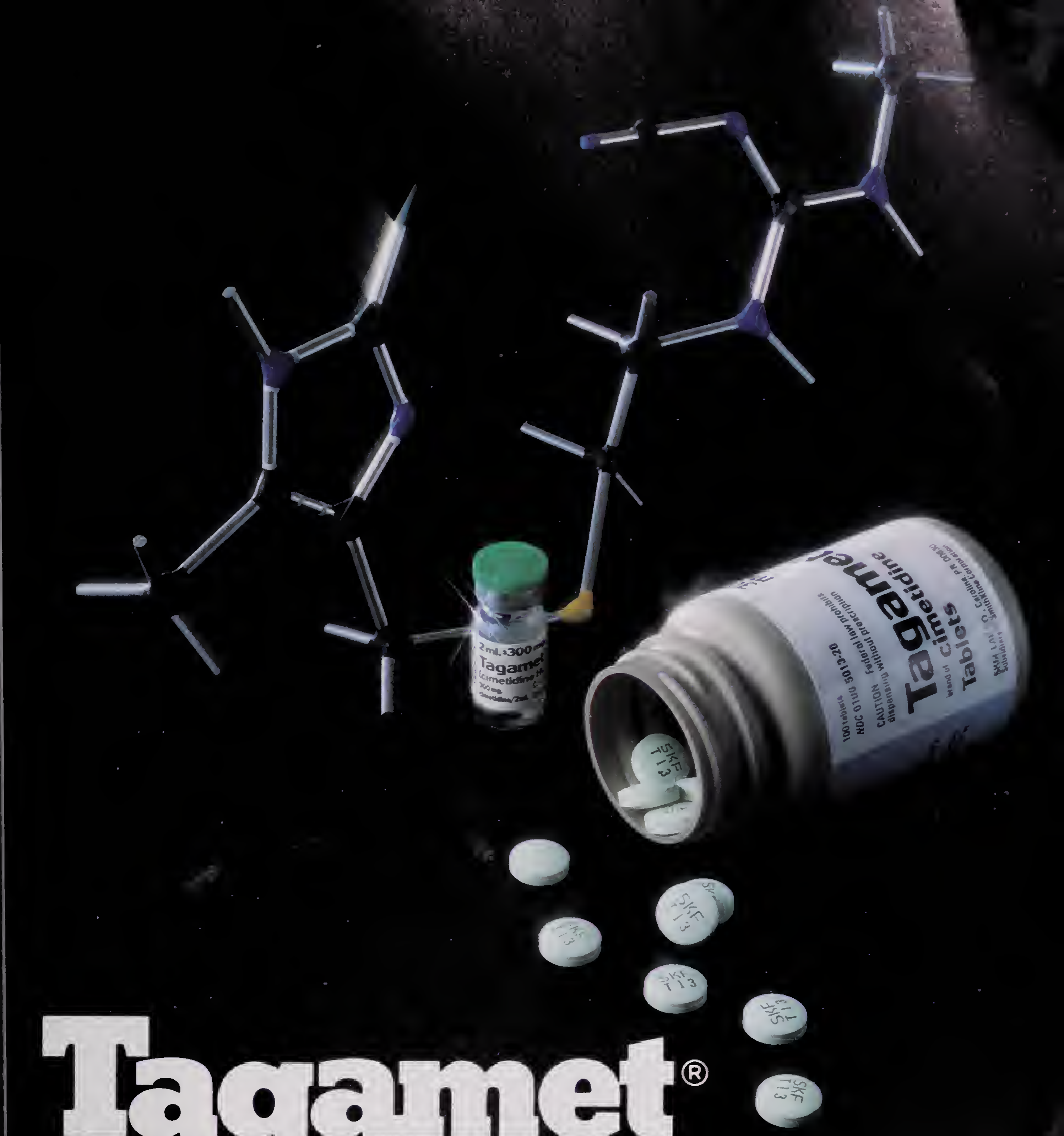
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When painful spasm
is the presenting
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10 mg. capsules, 20 mg. tablets,
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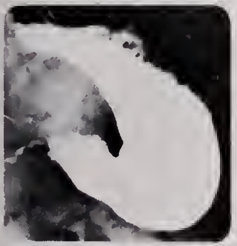
## helps control abnormal motor activity with minimal anticholinergic side effects†

### Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.

Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

*"The correlation of spasm relief and drug given was excellent."*

*This drug has been classified "probably" effective in treating certain functional G.I. disorders.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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Capsules, Tablets, Syrup, Injection
AVAILABLE ONLY ON PRESCRIPTION.

Brief Summary
INDICATIONS
For use as adjunctive therapy in the treatment of peptic ulcer.
IT SHOULD BE NOTED AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMODICS IN THE TREATMENT OF GASTRIC ULCER. IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMODIC DRUGS AID IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION.

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective:

May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).

THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.

For use in the treatment of infant colic (syrup).

Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis, myasthenia gravis. WARNINGS. In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: autonomic neuropathy; hepatic or renal disease; ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon; hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension, hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.

It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. ADVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include xerostomia, urinary hesitancy and retention; blurred vision and tachycardia, palpitations; mydriasis; cycloplegia, increased ocular tension, loss of taste; headache; nervousness; drowsiness; weakness; dizziness, insomnia, nausea; vomiting; impotence, suppression of lactation, constipation; bloated feeling, severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating. With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. DOSAGE AND ADMINISTRATION: Dosage must be adjusted to individual patient's needs.

*Usual Dosage* Bentyl 10 mg. capsule and syrup: *Adults.* 1 or 2 capsules or teaspoonfuls syrup three or four times daily. *Children* 1 capsule or teaspoonful syrup three or four times daily. *Infants* ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg. *Adults.* 1 tablet three or four times daily. Bentyl Injection: *Adults.* 2 ml. (20 mg.) every four to six hours intramuscularly only. NOT FOR INTRAVENOUS USE. MANAGEMENT OF OVERDOSE. The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine* (bethanecol chloride USP) should be used.

Product Information as of October, 1976

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# 1979 Rural Health Conference Planned by AMA and Cosponsors

Twelve health- and medically-oriented organizations have joined with the American Medical Association to sponsor the 32nd National Conference on Rural Health scheduled for April 18-21, 1979 in St. Paul, Minn.

The newly-remodeled Radisson St. Paul Hotel will be headquarters for the conference.

Programs examining all aspects of the delivery of health care and related matters are being developed by the AMA, the AMA Auxiliary, the American Academy of Physicians, the American Dental Association, the American Hospital Association, the American Nurses Association and the American Pharmaceutical Association.

Other cosponsors arranging presentations and seminars are the Cooperative Extension Service of the U. S. Department of Agriculture (including both the Home Economics and National 4-H Council), the Farm Foundation, the Minnesota State Medical Association, the National Association of Counties and the National Safety Council.

Model projects which have proved successful in various parts of the country will be demonstrated and described so that registrants at the conference may determine possible implementation or adaptation of the model programs in their own communities.

Continuing medical education courses for physicians introduced at the 1978 Rural Health Conference in Denver will be extended at the St. Paul Conference and will provide intensive training courses in the illnesses, injuries and medical socioeconomics encountered by men and women serving rural populations.

The first all-sponsor planning session was held at the AMA headquarters in Chicago in July with other sessions to follow during the fall and winter.

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# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

**The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine**
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

| | |
|---|---|
| **Dec. 11** | City-Wide Radiology Conference: Double Contrast GI Examinations |
| (1979)<br>**Jan. 1** | City-Wide Radiology Conference: Ultrasound in Obstetrics and Gynecology |
| **Feb. 2** | City-Wide Radiology Conference — Pediatric Radiology |
| **March 3** | City-Wide Radiology Conference — Efficacy Studies in Radiology — The Barium Enema |
| **April 9** | City-Wide Radiology Conference |
| **May 14** | City-Wide Radiology Conference: Radiology of the Temporomandibular Joint |

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**American College of Physicians**
*Contact:* Thomas W. Burns, F.A.C.P.
University of Missouri, Columbia 65201

| | |
|---|---|
| (1979)<br>**March 29-31** | Missouri Regional Meeting<br>(Columbia) |

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**Menorah Medical Center**
4949 Rockhill Rd., Kansas City 64110
(816) 276-8089
*Contact:* Mrs. Feya Scholtz, Postgraduate Education

| | |
|---|---|
| **Every Thurs.** | Surgical Grand Rounds<br>(Contact Erich W. Pollach, M.D.) |

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**Ellis Fischel State Cancer Hospital and Cancer Research Center**
115 Business Loop West, Columbia 65201
(314) 449-2711
*Contact:* Carl G. Kardinal, M.D.

| | |
|---|---|
| **Dec. 9** | Professional Program — Therapy for Lung Cancer |

**Washington University School of Medicine**
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 454-3837 or (314) 367-9673
*Contact:* Loretta Giacoletto

| | |
|---|---|
| **Nov. 30-Dec. 1** | Emergency Cardiology — Diagnosis and Therapy |
| (1979)<br>**Feb. 16-17** | TB Today |
| **Feb. 22-23** | Use of the Laboratory in Clinical Practice |
| **March-May** | Internal Medicine Review (Weekly, day TBA)<br>(Steinbert Auditorium, The Jewish Hospital) |
| **March 1-2** | An Update in Renal Diseases |
| **April 19-20** | Recent Advances in the Diagnosis and Treatment of Hyperlipidemias |
| **April 23-24** | Developmental Deviations in Children and Adolescents |
| **April 26-27** | Sixth Annual Symposium on Obstetrics and Gynecology |
| **May 2-4** | Washington University Medical Center Alumni Reunion |
| **May 10-12** | Neuromuscular Diseases<br>(Breckenridge Pavilion Inn, 1 South Broadway) |
| **May 31** | Newborn Metabolic Problems |

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**Missouri Chapter, American College of Surgeons**
Box 1268, Columbia 65201
*Contact:* Raymond A. Amoury, M.D., F.A.C.S., President

| | |
|---|---|
| (1979)<br>**June 22-23** | Annual Professional Meeting<br>(Alameda Plaza, Kansas City) |

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**St. John's Mercy Medical Center**
615 S. New Ballas Rd., St. Louis 63141
*Contact:* James G. Blythe, M.D., Chairman, Dept. of Obstetrics and Gynecology

| | |
|---|---|
| (1979)<br>**May 10-11** | 11th Annual Matt Weis Symposium — Surgical Techniques in Obstetrics and Gynecology |

**University of Kansas College of Health Sciences**
**Division of Continuing Education**
**Rainbow at Olathe Blvd., Kansas City, Kan. 66103**
**(913) 588-7130**

| | |
|---|---|
| **Nov. 30-<br>Dec. 1** | Surgery<br>(KUMC and Hilton Plaza Inn, Kansas City) |
| (1979)<br>**Feb. 22-23** | Gynecology and Obstetrics in the 80s |
| **March 12-14** | Pediatrics |
| **March 15-16** | Recent Advances in Therapeutics |
| **March 29-30** | Sexuality of the Handicapped |
| **April 2-3** | Ophthalmology: Ophthalmic Plastic Surgery |
| **April 6-8** | Anesthesiology<br>(Crown Center Hotel, Kansas City) |
| **April 23-24** | Noninvasive Cardiac Diagnosis |
| **April 25-26** | Family Practice<br>(Radisson-Muehlebach, Kansas City) |
| **April 27** | Infectious Diseases<br>(Radisson-Muehlebach, Kansas City) |

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**Kansas City Society of Ophthalmology and Otolaryngology**
**3036 Gillham Rd., Kansas City 64108**
**(816) 531-8432**
***Contact:* Mario J. Guastello, M.D., President, or Roger A. Weis, Executive Director**

| | |
|---|---|
| **Nov. 30-<br>Dec. 1** | Annual Clinical Meeting<br>(Hilton Plaza Inn, Kansas City) |

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**Greater Kansas City Radiological Society**
***Contact:* G. David Dixon, M.D, President-Secretary**
**(816) 932-2550**

| (1979) | (Afternoon and Evening Sessions) |
|---|---|
| **Jan. 17** | Chest — Biopsies and CT |
| **Feb. 21** | Neuroradiology — Use of Metrizamide |
| **March 21** | Uroradiology |
| **April 18** | Special Procedures |

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**University of Missouri-Columbia**
**M-175 Medical Center, Columbia 65201**
**(314) 882-2256**
***Contact:* William Bradshaw, M.D., Director**

| | |
|---|---|
| **Dec. 1-3** | National Conference on Group Relations in Health Care<br>(Contact Elizabeth M. Heimburger, M.D., C-6 Medical Center O (314) 882-2511 |
| (1979)<br>**April 9-10** | 25th Annual Urology Seminar<br>(Crown Center Hotel, Kansas City) |

**University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society**
**Continuing Medical Education**
**2220 Holmes St., Kansas City 64108**
**(816) 276-1339**
***Contact:* Alta Bingham**

| | |
|---|---|
| **Dec. 7-9** | The Heart 1978 |
| (1979)<br>**Jan. 21-26** | Mid-Winter Traveling Medical Education Course<br>(Steamboat Springs, Colo.) |
| **Feb. 9-10** | The Long Weekend: Infertility/Endocrinology |
| **Feb. 17-24** | Winter Traveling Medical Education Course<br>(Maui, Hawaii) |
| **March 4-10** | Late-Winter Traveling Medical Education Course<br>(Scottsdale, Ariz.) |
| **April 5-7** | Perspectives in Medicine |
| **April 20-21** | The Long Weekend: Neurology/Renal Diseases |
| **May 3-5** | Seminar: Update in Obstetrics and Gynecology |
| **May 17-18** | Surgical Problems—Old and New |
| **June 7-8** | Symposium: Physical Fitness |

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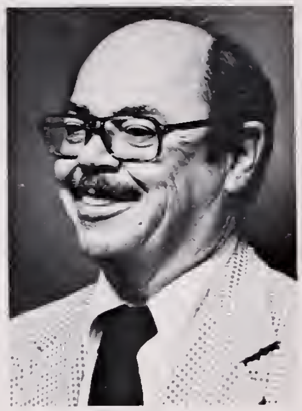
# NEWS

# From the Medical Schools

## ST. LOUIS UNIVERSITY

*John B. Shields*, M.D., has been appointed chairman of the Department of Radiology.



Dr. Shields

Dr. Shields joined St. Louis University in 1967 as an instructor in radiology, rose to the rank of assistant professor in 1968 and was named associate professor in 1971. He was appointed vice-chairman of the department in 1975. Dr. Shields is director of residency training for radiology and currently serves as acting chairman of the Department of Radiation Oncology.

A native of Butte, Mont., Dr. Shields received his B.S. degree from Gonzaga University in Spokane, Wash. in 1953 and his M.D. degree from St. Louis University School of Medicine in 1957. He interned at the St. Mary's Group of Hospitals in St. Louis and served residencies at the St. Louis Veterans Administration Hospital and St. Louis University Group of Hospitals.

Dr. Challoner

*David R. Challoner*, M.D., dean of the School of Medicine, has been selected by Joseph A. Califano, Jr., secretary of the Department of Health, Education and Welfare to participate as a panelist on fundamental research at a National Conference on Health Research Principles at the National Institutes of Health in Bethesda, Md.

The conference, initiated by the secretary, is part of a plan to establish a new, open process to develop principles of a multi-year strategy to guide HEW health research activities.

*William E. Allen, Jr.*, M.D., clinical professor of radiology, was honored at the 83rd Annual Convention and Scientific Assembly of the National Medical Association in Washington, D. C. when the Section of Radiology inaugurated an annual lectureship in his name.

The first lecture was delivered by *Leslie L. Alexander*, M.D., director of radiology, Queens Hospital Center Affiliation of the Long Island-Jewish Hillside Medical Center in Jamaica, N. Y. His topic was "Pearls from the Past: The Treasure of Tuberculosis."

The National Institutes of Health has awarded a $123,000 grant to the School of Medicine for development of new research ideas and initial support for junior investigators. The grant will be administered by Dean David R. Challoner with recommendations by an internal committee of faculty members of the School.

*Donald L. Kaminski*, M.D., associate professor of surgery, has been awarded a three-year grant for $156,624 by the Department of Health, Education and Welfare for a study to determine the cause of hepatic lipid, or liver fat, accumulation following small intestinal bypass operations.

Recent studies conducted by Dr. Kaminski using an obese rat model have resulted in relevant information relating to post-bypass fatty liver degeneration. His investigations have demonstrated that increased hepatic lipid accumulation, produced by chloride deficiency, is heightened by the bypass operation.

Metabolic and absorptive studies in an obese rat model may provide insight into the mechanisms producing many metabolic abnormalities that occur in morbidly obese human beings undergoing small intestinal bypass.

The National Institute of General Medical Sciences, NIH, has awarded a $133,500 grant to Karl M. Dus, Ph.D., associate professor of biochemistry, for comparative structural studies of p-450 hemeproteins. Recent studies show that P-450 hemeproteins are the central enzymes of the body's general defense system against environmental pollutants, drugs and carcinogens and are a direct response to the widespread onslaught of toxic agents.

Results of the investigation may aid in an improved drug design so that relatively harmless chemicals, which act in the body as potent inducers of p-450 hemeproteins stimulating the defense system, may be substituted for highly toxic compounds.

## UNIVERSITY OF MISSOURI-KANSAS CITY

A team of five from the Department of Ophthalmology won third place award for the scientific exhibit they displayed during the annual meeting of the American Academy of Ophthalmology.

The award winners are *Dr. Felix N. Sabates*, *Dr. King Y. Lee*, *Dr. Matthew C. Ziemianski*, *Dr. Roland Sabates* and *Gary Gallimore*.

Their exhibit, "Controversial Aspects in Presumed Ocular Histoplasmosis," deals with an eye problem particularly prevalent in the Missouri and Mississippi River valleys. The award winning display demonstrates the usefulness of laser light in treating this infection.

The investigators report that 105 patients were treated with laser light, and all results were encouraging. It is reported to be the largest study of its type ever made.

*Dr. Marjorie S. Sirridge*, senior docent and professor of medicine, has received a grant of $14,548 from the Lettie B. McIlvain-Frederic Ervine McIlvain Fund Trust in support of a series of investigative studies relating to thrombosis. The funds will make it possible to proceed with the present project which relates to diabetes, pregnancy and the increased tendency to thrombosis in these states. This research adds to the scientific information concerning vascular disease, thrombosis and hemorrhage. Dr. Sirridge is working in collaboration with *Dr. James Sowers* and *Dr. Naim Kassar*.

*Dr. Susan Pingleton*, assistant professor and docent, has been notified by the National Heart, Lung and Blood Institute that she will receive the Pulmonary Academic Award. The award will be funded for five years in the total amount of approximately $250,000. The dual purpose of the award is to improve the quality of pulmonary curricula and to foster research careers in the respiratory field.

Dr. Pingleton graduated from the University of Kansas in 1972 and remained there for her residency and fellowship. She received a National Science Foundation Residency Grant in 1967 and was named Kansas Outstanding Woman of the Year in 1969. Dr. Pingleton joined the UMKC faculty in 1977.

## WASHINGTON UNIVERSITY

For the second time in ten years, a Washington University School of Medicine alumnus has received the Nobel Prize in Medicine. *Daniel Nathans*, who received the M.D. degree magna cum laude in 1954, has won the 1978 Nobel Prize in Medicine.

Dr. Nathans is professor and head of the Department of Microbiology at Johns Hopkins University School of Medicine in Baltimore, Md. He shared the award with Hamilton Smith, also of Johns Hopkins, and Werner Arber, M.D., from Basel University, Switzerland.

Dr. Nathans and his colleagues were cited for their "discovery of restriction enzymes and their application to the problems of molecular genetics." These genetic discoveries will help in the prevention and treatment of cancer and diagnosis of birth defects and will play a role in the process of test tube fertilization.

Earl Sutherland, M.D., a 1942 graduate, won the Nobel Prize in Medicine in 1971 for his discoveries concerning the mechanisms of hormone actions.

## UNIVERSITY OF MISSOURI-COLUMBIA

The Rusk Rehabilitation Center has been designated as one of the 14 spinal cord injury treatment centers in the U. S. and the Department of Health, Education and Welfare has announced that it is awarding a $250,000 annual grant for its support.

At this time, the other centers in the midsection of the country are in Minneapolis, Chicago, Houston and Denver. Consequently, it is expected that patients will come to the Rusk Center from a wide area of the Middle West. The grant will finance additional staff.

*Dr. Charles R. Peterson*, chairman of physical medicine and rehabilitation, said that the center offers a multidisciplinary program that is "comprehensive in that it begins with emergency transport, continues with acute care, rehabilitation and resocialization of patients suffering spinal cord injuries."

The Peer Review Group who recommended HEW support cited the Rusk Rehabilitation Center program as "number one in the country" among the programs they reviewed.

*Weldon B. Webb* has been promoted to assistant director of Continuing Education and Extension for the Health Professions on the Columbia campus. A member of the staff since September, 1970, he has been conference coordinator for programs offered on and off-campus for physicians, nurses and allied health personnel.

Mr. Webb will continue his work in coordinating conferences and will have additional responsibilities in developing new programs, planning and budgeting.

During the 1977-1978 academic year, 7,725 health professionals enrolled in continuing education courses offered by the University at 20 locations in the state. An average of 34 people attended the 230 conferences and workshops. The hours of instruction exceeded 71,000.

Mr. Webb works with *William D. Bradshaw*, M.D., medical director for the continuing education programs offered by the Medical Center; *Robert Casati*, conference coordinator; and *Jack Lyon*, instructor in extension education.

Members of the Department of Pathology recently honored *Dr. John Townsend* upon the announcement of his appointment as permanent chairman of the department. Dr. Townsend is the first graduate of the four-year medical school to become a department chairman at his alma mater. He has served as interim chairman during the past year.

*Frank E. Gump*, M.D., professor of surgery and at the College of Physicians and Surgeons, Columbia University, presented the W. Alton Jones Lecture for 1978 in October. The event recognizes a gift of $255,000 from the W. Alton Jones Foundation to support medical research and education. Dr. Donald Silver, chairman of the Department of Surgery, holds the title of W. Alton Jones Distinguished Professor.

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Final classification of the less-than-effective indications requires further investigation.

**Contraindications:** Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Br.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

**Precautions:** In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

**Adverse Reactions:** No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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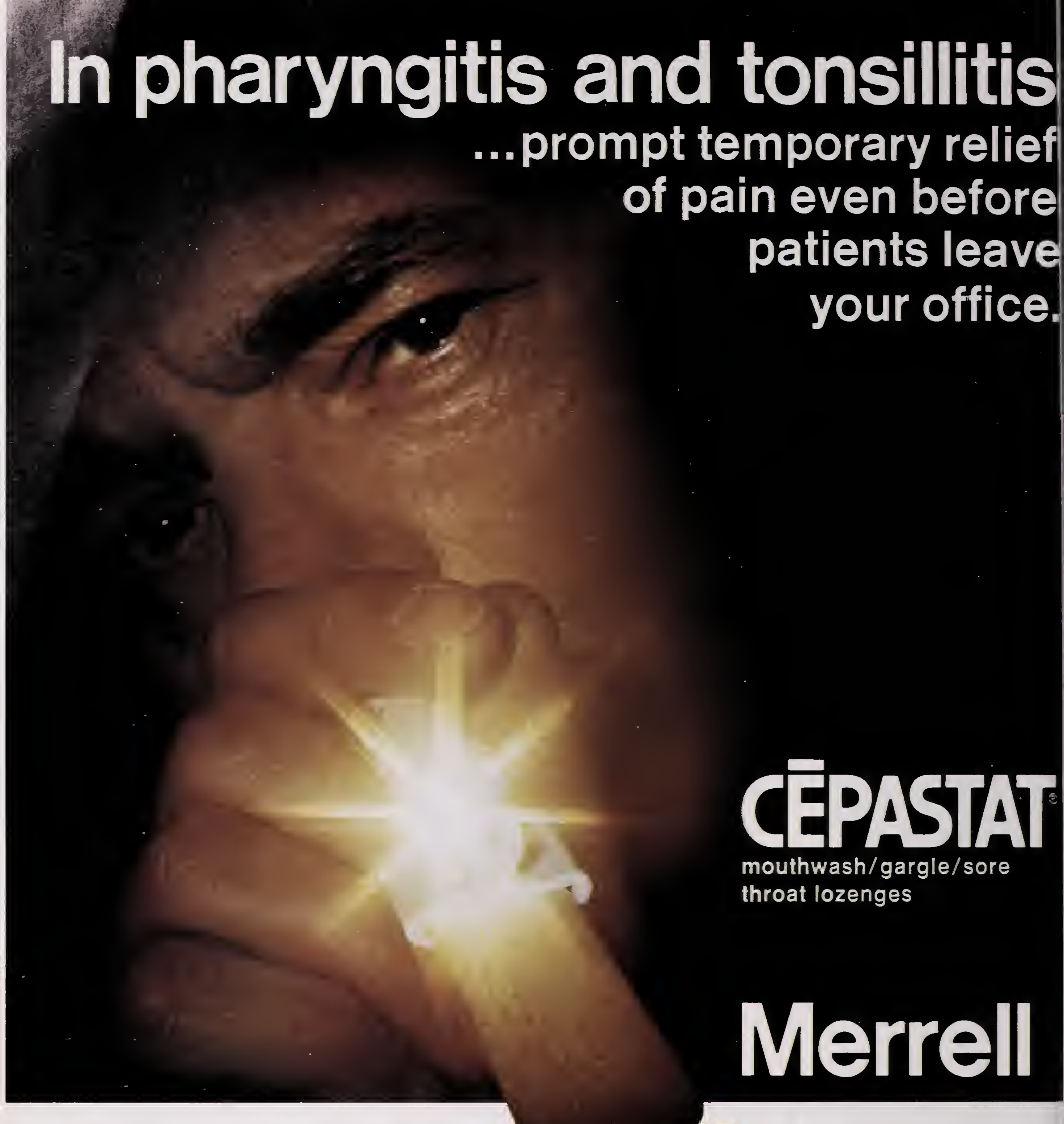
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| Class | I | No Surgery | 540 | 340 | 400 | 240 |
| | II | Minor Surgery | 819 | 469 | 640 | 360 |
| | IIIC | Urologist, Opthalmology, Proctologist | 3,120 | 1,920 | 2,400 | 1,440 |
| | IVC | General Surgery | 4,067 | 2,567 | 3,200 | 2,000 |
| | IVD | Otolaryngologist, OBGYN, Plastic | 5,202 | 3,162 | 4,080 | 2,448 |
| | IVE | Thoracic, Neuro, Orthopedists | 6,630 | 4,030 | 5,200 | 3,120 |
| | IVF | Anesthesiologists | 7,028 | 4,228 | 5,520 | 3,280 |

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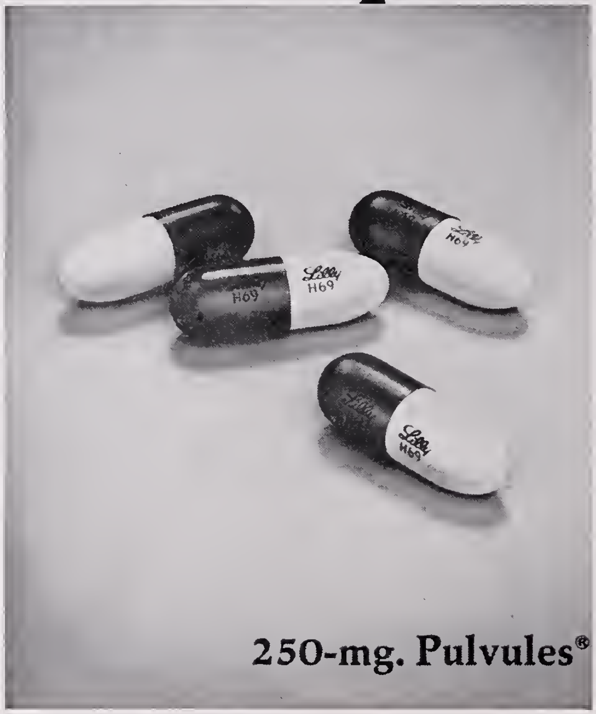

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DAVID J. HARRIS, M.D. *and*
MICHAEL L. BEGLEITER, *Kansas City*

# Experiences With Inborn Errors of Metabolism

THE GENETIC COUNSELING CENTER of The Children's Mercy Hospital was established in July, 1974. Previous articles have described some of the activities of the Center.[1,2] An expanding aspect of the service has been the diagnosis, treatment and prevention of inborn errors of metabolism.

## HISTORICAL PERSPECTIVE

The theory of an inborn error of metabolism had its birth in 1908 when Sir Archibald Garrod developed the concept that certain diseases of lifelong duration arise because an enzyme governing a single metabolic step is reduced in activity or missing altogether.[3] His conclusions were based on his studies of patients with alcaptonuria, albinism, cystinuria and pentosuria.

This field has expanded so rapidly in 70 years that there are now more than 400 inherited disorders in which a relationship between a given gene and a particular metabolic function has been recognized, and approximately 200 diseases in which there is sufficient information to indicate that either the quality or the availability of a specific protein have been altered.[4] Some of these disorders are common (such as diabetes mellitus), while many of them are extremely rare (like propionic acidemia).

The diagnosis, treatment and provision of genetic counseling to these patients and their families is crucial if we are to help these individuals function in society and permit these families to make informed decisions about family planning.

## PRINCIPLES OF INBORN ERRORS OF METABOLISM

The consequences of metabolic defects are dependent upon the role normally served by the protein which has been altered in quality or quantity. When a metabolic block occurs, not only will the product of that reaction be reduced in quantity, but metabolites further down the pathway may also be missing. An example of this is the lack of pigmentation in one form of albinism which is due to the decreased activity of the enzyme tyrosinase. This enzyme deficiency is responsible for the failure of melanin formation.

Another consequence of a metabolic block is the accumulation of precursors of the blocked reaction and overproduction of substances produced through metabolism of the precursor substances through alternative pathways. In phenylketonuria, the decreased activity of phenylalanine hydroxylase results in increased levels of phenylalanine as well as an overproduction of the phenylketones for which the disease is named.

As in most genetic diseases, metabolic disorders are variable in their expression. This group of disorders varies in severity from innocuous metabolic variants to lethal disorders. In between these extremes are disorders such as glucose-6-phosphate dehydrogenase deficiency in which the patient is asymptomatic unless exposed to certain drugs. Problems like gout can cause periods of discomfort but are generally compatible with a normal life style.

**This summary of experiences in caring for patients with inherited metabolic disorders begins with an historical perspective of the problem, reviews the basic principles of inborn errors of metabolism and discusses some of the problems in diagnosis, treatment and prevention of biochemical disorders. The authors are from the Genetic Counseling Center at The Children's Mercy Hospital where Dr. Harris is a Pediatric Geneticist and Mr. Begleiter is a Genetic Counseling Associate.**

**This work was supported in part by grants from The Carrie J. Loose Trust and The Victor Speas Trust and funds from The Children's Mercy Hospital**

The fundamental biochemical error in all inborn errors of metabolism is present prenatally, but the clinical expression of that defect may be congenital (such as many of the aminoacidopathies) or be delayed well into adulthood (like gout). In at least one disorder, galactosemia, the problems may improve with age. Many of the diseases have sex-linked inheritance, such as classical hemophilia and Fabry's disease, with little or no expression of the trait in carrier females.

The diagnosis of biochemical defects requires a host of sophisticated laboratory procedures, many of which are performed only in one or two genetics centers in this country. Most tests involve an attempt to identify an abnormal metabolite in urine, serum or plasma. For those disorders in which a specific enzyme defect has been characterized, it is possible to assay directly for the decreased activity of the enzyme. These assays often require tissue culture because the enzymes are not always functional in blood cells. One relatively new application of biochemical studies is the use of cultured cells from amniotic fluid to identify in utero a fetus with an enzyme deficiency. Although used to enable a family to terminate a pregnancy with an affected fetus, one can now treat at least one condition in utero. (A fetus with Vitamin B12 responsive methylmalonic acidemia can be handled in this manner.)

The treatment of metabolic disease is a complex and time-consuming undertaking. For many of the disorders, there is little experience from which to design treatment regimens and so one must base decisions for care on a logical approach to the problem at hand. Replacement of the missing metabolite, e.g., thyroxine in metabolic cretinism, is one approach to managment. Disorders in which a precursor undergoes toxic accumulation can be handled by limiting intake. An example of this is the lactose-free diet for patients with galactosemia. Metabolic inhibitors (such as allopurinol which inhibits xanthine oxidase) have been used to regulate uric acid production in gout. A storage disorder should be manageable by depleting the accumulated substance. Penicillamine is used for just such a purpose for patients with Wilson's disease who store copper. Patients with pseudocholinesterase deficiency can be cared for by environmental manipulation. These individuals must avoid the use of suxamethonium as anesthetic adjunct. When exposed to this medication, these patients stop breathing and require very careful management postoperatively to insure that they will resume normal respiration.

Attempts have been made to supply the missing enzyme. Hurler syndrome patients have been infused with plasma from normal individuals with limited success. Organ transplantation, a relatively new area in metabolic management, has not proven worthwhile in hemophilia (spleen) and gout (kidney), but it has had some very exciting successes in immunologic deficiency states (bone marrow or thymus). An attempt to inject a virus carrying the gene for arginase into an enzyme deficient individual has been attempted. This first experience with genetic engineering has been unsuccessful.

## EXPERIENCE WITH INBORN ERRORS OF METABOLISM

The staff of the genetic counseling center has worked with patients with a variety of metabolic disorders (Table 1). Some of the patients had relatively straightforward diagnostic problems, while others involved consultation with geneticists and biochemists from various cities in the United States.

The families with diabetes mellitus came for two reasons; some had young children with the disease and were concerned about recurrence risks, while others were diabetic women who were worried about the syndrome of congenital malformations in infants of diabetic mothers. These women are at high risk for spontaneous abortion, perinatal mortality and infants with significant congenital anomalies.

Many of the patients require careful ongoing biochemical evaluation as well as rigidly monitored diets. Patients with classical galactosemia, phenylketonuria, methylmalonic acidemia, ornithine transcarbamylase deficiency, propionic acidemia and transient tyrosinemia are all cared for in cooperation with a nutritionist. These patients often see the geneticist and nutritionist on a weekly basis until the family understands the diet and the patient's metabolic difficulties are regulated. Appointments are then scheduled less frequently but often enough to insure careful monitoring of the diet.

Some of the disorders require little or no biochemical treatment since there are no means known for controlling the problem. Management involves regular pediatric care, symptomatic treatment and adequate genetic counseling. These patients have disorders like albinism, homocystinuria (our patient is not pyridoxine responsive), mannosidosis, Hurler syndrome, San Filippo syndrome and the two patients whose mucopolysaccharidoses have not yet been categorized.

The families of children with metachromatic leukodystrophy and Lowe's syndrome require genetic counseling and emotional support once the diagnosis has been established. These inherited disorders produce profound mental retardation and death in childhood. Referrals are often made to appropriate social and medical agencies to help these families deal with their problems.

The patients with glucose-6-phosphate dehydrogenase deficiency and pseudocholinesterase deficiency need instruction for the environmental substances and drugs that they must avoid in order to prevent the anemia of G-6-PD or respiratory arrest in pseudocholinesterase deficiency.

In reflecting on our experience of the past three years, it is apparent that the patients with the most frequently seen disorders are discovered through legally mandated screening for phenylketonuria. These screening programs have taught us that not all elevated serum phenylalanines represent phenylketonuria. The distinction is not academic and not always easy to make. The consequences of not adequately treating phenylketonuria are known to be disastrous as are the risks for overly treating a child with hyperphenylalaninemia. It has been shown that rapid institution of dietary management is important for a satisfactory outcome. Most authorities recommend that the treatment be started by one month of age.[5, 6] We would suggest that all infants with borderline or positive screening tests be referred immediately for more definitive evaluation rather than wait for the return of a repeated screening test.

TABLE I
METABOLIC DISORDERS FOR WHICH GENETIC COUNSELING HAS BEEN PROVIDED

| | *No. of Families* |
|---|---|
| *Disorders of Carbohydrate Metabolism* | |
| Diabetes mellitus | 7 |
| Galactokinase deficiency | 1 |
| Galactosemia (classical) | 4 |
| Galactosemia heterozygote | 2 |
| Glycogen storage disease Type II | 1 |
| Glycogen storage disease—multiple enzyme defects | 1 |
| *Disorders of Amino Acid Metabolism* | |
| Albinism | 5 |
| Homocystinuria | 1 |
| Hyperphenylalaninemia | 7 |
| Methylmalonic acidemia (Vit. B12 responsive) | 1 |
| Ornithine transcarbamylase deficiency | 1 |
| Phenylketonuria | 4 |
| Propionic acidemia | 1 |
| Tyrosinemia (transient) | 2 |
| *Disorders of Lipid Metabolism* | |
| Fabry's disease | 1 |
| Metachromatic leukodystrophy | 2 |
| *Disorders of Steroid Metabolism* | |
| Adrenogenital syndrome | 1 |
| *Disorders of Metal Metabolism* | |
| Wilson's disease | 1 |
| Hepato-cerebro-renal syndrome | 1 |
| *Diseases of Porphyrin Metabolism* | |
| Acute intermittent porphyria | 2 |
| Coproporphyria | 1 |
| *Diseases of Connective Tissue* | |
| Mannosidosis | 1 |
| Mucolipidosis II | 1 |
| Mucopolysaccharidosis I—Hurler syndrome | 1 |
| Mucopolysaccharidosis III—San Filippo syndrome | 1 |
| Mucopolysaccharidosis (uncategorized) | 2 |
| *Diseases Manifest in Blood and Blood-forming Tissues* | |
| Glucose-6-phosphate dehydrogenase deficiency | 3 |
| α-Thalassemia | 1 |
| *Diseases Manifest as Transport Disorders* | |
| Lowe's oculocerebrorenal syndrome | |
| *Deficiencies of Circulating Enzymes and Plasma Proteins* | |
| Pseudocholinesterase deficiency | 1 |

We also have had two unfortunate experiences with galactosemia of the classical variety associated with deficiency of galactose-1-phosphate uridyl transferase. Both infants arrived in severe liver failure with ascites and died. Although galactosuria may be intermittent, when present it is detectable with tests for reducing substances like Clinitest® tablets. The urine dip sticks use glucose oxidase and, therefore, detect only glucose. In addition to definitive assay for the enzyme deficiency, screening tests that have been used on

(Continued on page 555)

WON J. SULL, M.D., *Sedalia*

# Diagnosis of Thrombophlebitis in the Lower Extremity

THE DIAGNOSIS of deep vein thrombosis has recently been improved by the use of a noninvasive plethysmographic technique, phleborheogram (PRG). Early studies report over 97% accuracy.[1,4] It has been repeatedly demonstrated that clinical diagnosis of deep vein thrombosis on the basis of physical signs and symptoms alone was only 50% accurate.[2,3] Among documented cases of pulmonary embolism, no more than 20% have clinical manifestations of thrombophlebitis in the legs. This study reviews the experience with 631 extremities which were tested for deep vein thrombosis using the phleborheographic technique between September 1976 to September 1977 at the Bothwell Memorial Hospital in Sedalia.

**The clinical diagnosis of deep vein thrombosis on the basis of physical signs and symptoms alone is often inaccurate. Phleborheography, a plethysmographic technique for detection of deep vein clots, is highly accurate. It can be learned easily by an interested physician and tests can be performed by a technician. The technique is an especially efficient method for screening out deep vein thrombosis of the lower extremities and pelvis. Dr. Sull is in the private practice of general surgery.**

## METHOD

The patient lies on his or her left side, slightly flexing the knee of the extremity being examined (Fig. 1). The foot of the examining bed is lowered 10 degrees to induce venous pooling. The PRG machine has a six-channel recorder and each channel is connected to a recording cuff. The first cuff is placed around the lower chest to record the respiratory cycle. The second cuff is placed around the mid-thigh; the third cuff to the upper calf; the fourth cuff to the mid-calf; the fifth cuff to the lower calf; and the last cuff to the foot.

The upper four cuffs are for recording only. The lower two cuffs are for both recording and for applying pressure. The measurements from each cuff are transmitted through a volume transducer and recorded on a graph.

The test consists of two parts, Run A and Run B (Figs. 2 & 3). In Run A (foot compression), each cuff, except the foot cuff, acts as a recording cuff. Three quick compressions of 100 mm mercury pressure are applied to the foot and the pressure responses in the other cuffs are observed. Normally, there is no change in the base line. If there is a thrombotic obstruction above the compressing cuff in the foot, however, there will be a rise in the base line (Fig. 4). The size of each wave is observed. Large waves are seen in a normal extremity as venous volume changes with respiration when there are no clots in the leg veins. In a leg with acute venous obstruction, the waves become much smaller or disappear. The waves will reappear in about 10 days as venous collaterals or recanalization or both develop.

In Run B (calf compression), the fifth cuff that is around the low calf acts as a compression cuff and the other cuffs record volume changes. Again, three quick compressions of 50 mm mercury pressure are applied to the lower calf. Normally, emptying of the foot is observed. The calf compression

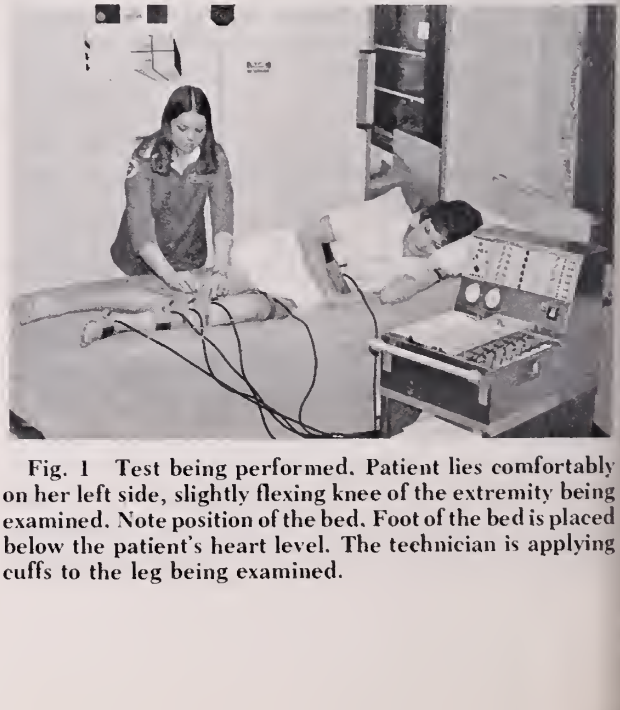

**Fig. 1 Test being performed. Patient lies comfortably on her left side, slightly flexing knee of the extremity being examined. Note position of the bed. Foot of the bed is placed below the patient's heart level. The technician is applying cuffs to the leg being examined.**

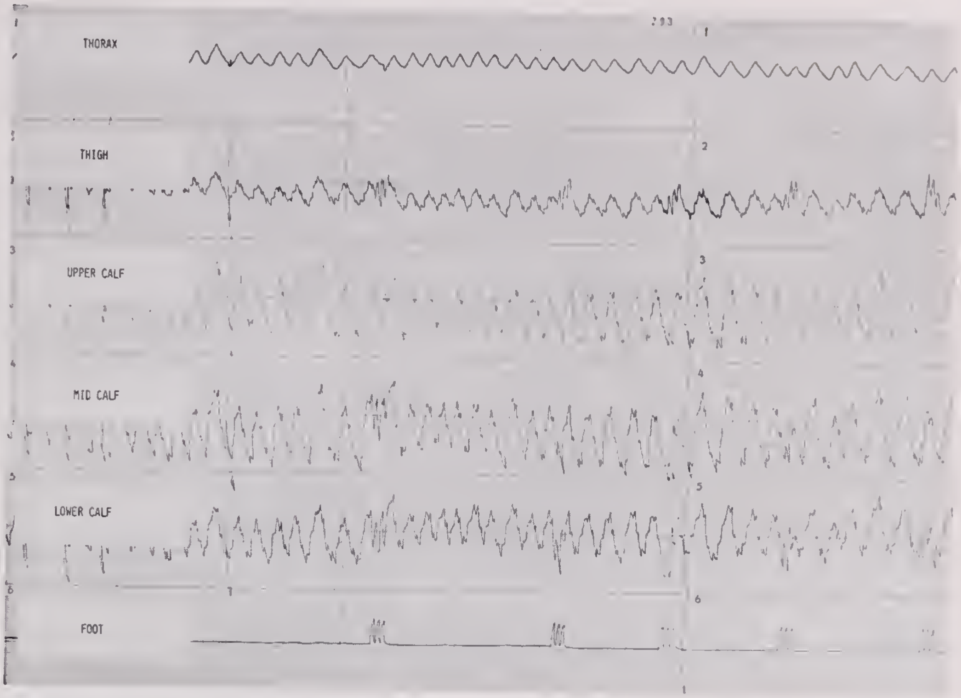

**Fig. 2** Normal tracing (Run A). Large respiratory waves show in all levels of extremity. There is no change in baseline of tracing when 100 mm Hg pressure is applied to the foot.

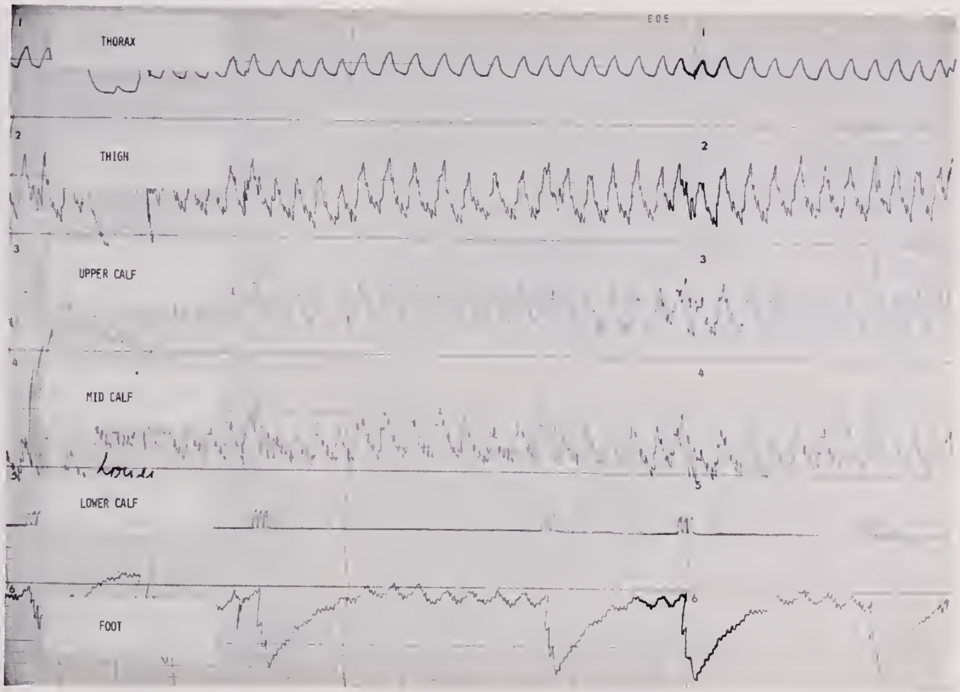

**Fig. 3** Normal tracing (Run B). Note emptying of foot when 50 mm Hg pressure is applied to lower calf. Tracings show large respiratory waves and absence of change in baseline during compression of lower calf.

will siphon the blood from the foot. This simulates the action during walking. The fall in the base line of the foot tracing occurs in a normal leg. In addition, one again observes the size of the waves and the presence and absence of a rise in the baseline.

Three principles are involved in interpretation of the PRG. One is the size of the waves. The transmission of respiration in a normal person will cause large sharp waves in the recording tested on the lower extremity. In acute, deep vein obstruction, the waves become smaller or disappear depending upon the degree of obstruction. Within ten days, acute thrombosis waves reappear due to collateral or recanalization.

The second is the rise in the baseline. Compression applied to the foot or low calf causes no change in the baseline of the tracing when the veins are patent. If there is an obstruction, there is always elevation of the baseline.

The third is foot emptying. When the deep

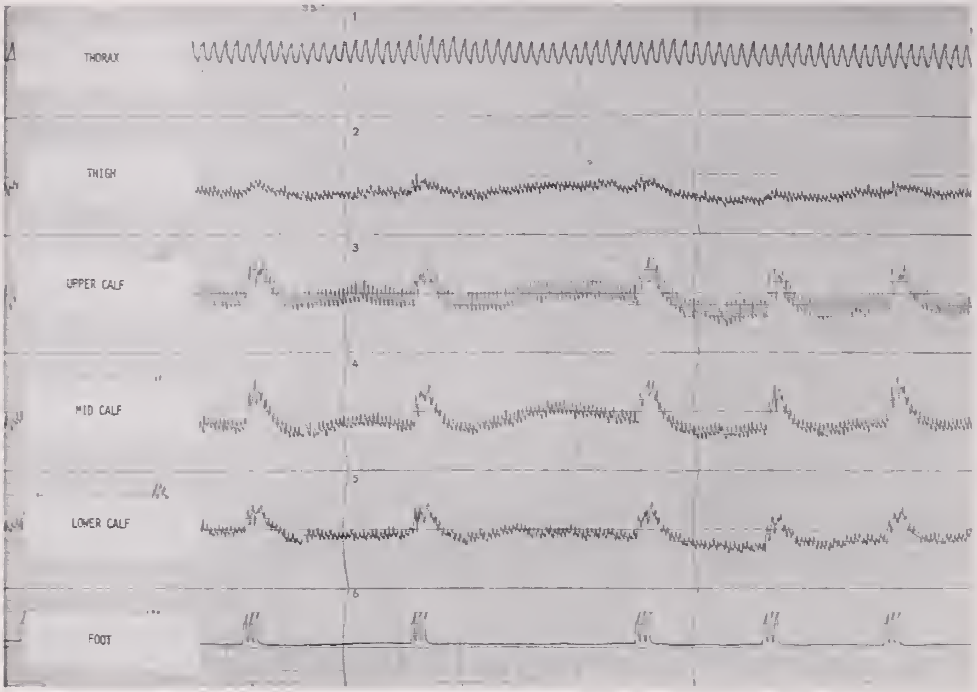

**Fig. 4** Abnormal tracing (Run A). Acute deep vein thrombosis. Note absence of respiratory waves and rise in baseline each time during compression of foot. In this case, clot probably had extended above common femoral vein.

veins are open, the foot veins will empty during compression of the lower calf. This results in a fall in the baseline since about .3 cc of blood are emptied from the foot during calf compression. If there is deep vein obstruction, the amount of foot emptying will be decreased or absent. In the patient with deep vein insufficiency or postphlebitic syndrome, the rate of refill of the veins in the foot is much faster than in a normal individual. Both legs are always tested, and the complete test takes 30 to 40 minutes.

## Results

Six hundred and thirty-one extremities were examined in 316 patients and 24 of these also had phlebograms (Table 1). Of the 607 extremities tested by the PRG alone, there were 56 positive tracings, 548 negative and three equivocal. Of 24 extremities studied by both PRG and phlebography, ten had a positive phlebogram and 14 had a negative phlebogram. Of the ten extremities with the positive phlebogram, one was interpreted as having a negative PRG. In this case, the phlebogram showed small blood clots below the knee, and a review of the PRG was believed to indicate that there had been a misinterpretation. Of the 14 extremities with the negative PRG, the phlebogram also was negative. There were no false positives. Of the extremities tested by PRG alone, no errors were indicated in the clinical follow-up.

TABLE 1
RESULT OF PRG TEST

| | | |
|---|---|---|
| Extremities studied by PRG and venogram | | 24 |
| Positive venogram | 10 | |
| Positive PRG | 9 | |
| Error (in interpretation) | 1 | |
| Negative venogram | 14 | |
| Negative PRG | 14 | |
| Error | 0 | |
| Extremities studied by PRG alone | | 607 |
| Positive | 56 | |
| Negative | 548 | |
| Equivocal | 3 | |

## Discussion

Recent interest in frequency of deep vein thrombosis has increased because of the highly sensitive studies using radioactive fibrinogen. Using the radioactive fibrinogen, however, requires that the isotope be given before the formation of the clot. Even when used in this manner, it will not detect thromboses in the pelvic vein. Doppler ultrasound and impedance plethysmography have been useful in experienced hands for screening purposes. The PRG appears to be extremely accurate and is useful in screening high risk medical and surgical patients for the presence of asymptomatic deep vein thrombosis and, also, for evaluating the patient who presents with a swollen extremity or painful calf; many of these patients, in fact, do not have deep vein thrombosis. Of particular interest for the results in the study are three patients who had radical groin dissections for malignant melanoma. All three had positive PRGs verified by venography. This finding alters the view that the chronic swelling following the groin dissection is due solely to lymphedema. PRG will pick up thrombus anywhere from the *named* calf veins to the inferior vena cava. It will not detect clots in the superficial veins, soleal plexus, deep femoral veins or internal iliac veins. The clinical significance of isolated clot in the soleal veins is in question, and our clinical experience indicates that it is rare to have clots in the deep femoral veins or internal iliac veins without involvement of the main venous stream.

## SUMMARY

Phleborheography (PRG) is a plethysmographic technique for detection of deep vein thrombosis. It traces blood flow within the deep venous system by measuring changes in leg volume. This technique is noninvasive and highly accurate. The technique can be easily learned by an interested physician and the tests can be performed by a technician.

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# *Inborn Errors of Metabolism*

*(Continued from page 551)*

large populations are available. It has been shown that infants believed to have died as a result of neonatal sepsis actually had galactosemia.[7, 8] These observations raise the question of whether mass screening for galactosemia should be implemented in the state.

To date, 59 families have had genetic counseling and biochemical evaluation at the genetic counseling center. Their problems demonstrate the complexity of human biochemical genetics and its diagnosis and treatment. We have noticed that as the genetic counseling center has served an increasing number of families, more families with children suffering from inherited metabolic diseases have come to our attention.

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"Medicine — A Global Discipline" will be the theme for the 75th Congress on Medical Education on May 9-13, 1979 at the Washington Hilton Hotel in Washington, D. C. The meeting is cosponsored by the AMA's Council on Medical Education, the Association for Hospital Medical Education, the Federation of State Medical Boards of the U. S., the AMA Resident Physicians Section, the AMA Student Business Section and the AMA Section on Medical Schools.

**BARBEL HOLTMANN, M.D., LEROY YOUNG, M.D.**
*and* **PAUL M. WEEKS, M.D.,** ***St. Louis***

# Pain at the Base of the Thumb

OSTEOARTHRITIS afflicts approximately 40% of the adult population.[1, 2] Since it is primarily a disease of aging, the incidence can be expected to increase as the average age of the population increases. The thumb carpometacarpal (CM) joint is often the first or only symptomatically involved joint. In the absence of acute trauma or inflammation and without other signs or symptoms of systemic illness, e.g., rheumatoid arthritis, the diagnosis of osteoarthritis should be suspected for the middle-aged patient who has isolated pain at the base of the thumb.

## ETIOLOGY

Osteoarthritis of the thumb CM joint is predominantly a disease of postmenopausal women. Therefore, hormonal influence has been postulated as an etiologic factor, but it has not been documented. Men with the disease also tend to be older, but they more commonly have a history of antecedent trauma, which is often job-related, prior to the onset of degenerative joint changes. Osteoarthritis of the thumb CM joint is often bilateral and, at least in the early stage, may be asymptomatic. The thumb CM joint may be the only joint involved or it may represent only one part in a spectrum of diffuse degenerative joint changes.

The true incidence of thumb CM joint osteoarthritis is unknown. However, one series of 150 random hand radiographs showed a 1 % incidence in men and a 20% incidence in women.[3] Approximately one third of these patients had mild symptoms, while less than one tenth had significant symptoms.

Although the etiology of osteoarthritis remains unknown, a combination of aging, major trauma, microtrauma of daily stress and probable predisposing genetic factors have been postulated to influence the structure and maintenance of articular cartilage.[1]

**In the absence of acute trauma or inflammation and signs or symptoms of systemic illness, the diagnosis of osteoarthritis of the thumb metacarpophalangeal joint should be considered for the middle-aged patient who has isolated pain at the base of the thumb. Although nonoperative measures may be effective in the early stages of the disease, resection implant arthroplasty of the trapezium has become the treatment of choice in later stages. The authors are from the Division of Plastic Surgery, Washington University School of Medicine.**

## ANATOMY

The base of the thumb metacarpal articulates with the distal surface of the trapezium, the most radial of the distal row of carpal bones (Fig. 1). The trapeziometacarpal, or thumb CM, joint is a saddle joint which allows free movement (flexion, extension, and rotation) of the thumb metacarpal.[4] At least five ligaments within the joint capsule that provide joint stability have been described.[5] The elastic properties of articular cartilage and lubrication provided by synovial joint fluid allow smooth unhindered motion at the joint and protect the underlying bone from ordinary stresses.

Other noteworthy structures in the area of the thumb CM joint include several tendinous units which may cause some confusion in making the differential diagnosis of pain at the base of the thumb when these units become involved with a chronic inflammatory process. These include the abductor pollicis longus and extensor pollicis brevis tendons, the flexor carpi radialis tendon, the extensor pollicis longus tendon and the extensor carpi radialis longus tendon.

The long abductor and short extensor tendons of the thumb are usually contained within a single (first) compartment beneath the extensor retinaculum at the level of the radial styloid, although separate compartments have been reported.[6] The usual insertion of the abductor pollicis longus tendon is along the radial base of the thumb metacarpal. However, several authors have documented aberrant insertions into the trapezium occurring in more than 50% of cases.[4] The extensor pollicis brevis tendon inserts on the proximal phalanx of the thumb after passing along the radial aspect of the trapezium. The extensor pollicis longus tendon crosses the wrist medial (ulnar) to the first dorsal compartment in a separate (third) compartment formed by the extensor retinaculum and a groove on the radius just medial (ulnar) to the radial (Lister's) tubercle. The tendon crosses the dorsoradial aspect of the trapezium before inserting on the distal phalanx of the thumb. The second dorsal compartment contains the extensor carpi radialis longus and brevis tendons. The short radial extensor tendon has no obvious association with the base of the thumb, but the long radial extensor tendon crosses the trapezium before inserting on the radial side of the second metacarpal. A small bursa sometimes occurs between the tendon and bone close to its insertion.[4]

The flexor carpi radialis tendon lies within a narrow groove along the anterior (volar) surface of the trapezium just medial (ulnar) to its tubercle before inserting along the base of the second metacarpal.[4] A portion of the flexor retinaculum inserts on the trapezial tubercle, thus providing a relatively narrow, rigid canal through which the tendon of the radial wrist flexor passes. Insertion of the flexor carpi radialis tendon into the trapezium also has been reported as a frequent anatomic variant.[7]

## Pathomechanics

The basic defect in osteoarthritis is the progressive loss of articular cartilage resulting in bare bones eventually making contact with one another. In the thumb CM joint, trauma, such as a fracture involving the articular surface of the base of the thumb metacarpal (Bennett's fracture), or chronic joint instability, such as an unrepaired ulnar collateral ligament (gamekeeper's thumb), may eventually lead to degenerative joint changes. Developmental anomalies of the trapezium may result in similar changes that are presumably due to prolonged abnormal stress to the joint with subsequent loss of articular cartilage.[8]

Radiographic changes of osteoarthritis parallel pathologic changes. Injury or loss of articular cartilage, for whatever reason, is accompanied by synovial inflammation with localized swelling and tenderness. The joint space narrows as loss of articular cartilage progresses. The bone adjacent to the narrowed joint space becomes eburnated. Degenerative cysts may be seen in the sclerotic trapezium and base of the thumb metacarpal. Bone spurs, osteophytes, or exostoses, may surround the joint (Fig. 2). The progression of disease results in dorsoradial instability of the joint with dorsal subluxation of the base of the thumb metacarpal and ulnar deviation of its head. The ensuing fibrosis and contracture result in a fixed deformity. Compensatory hyperextension of the metacarpophalangeal (MP) joint and flexion of the interphalangeal (IP) joint of the thumb occur.[9]

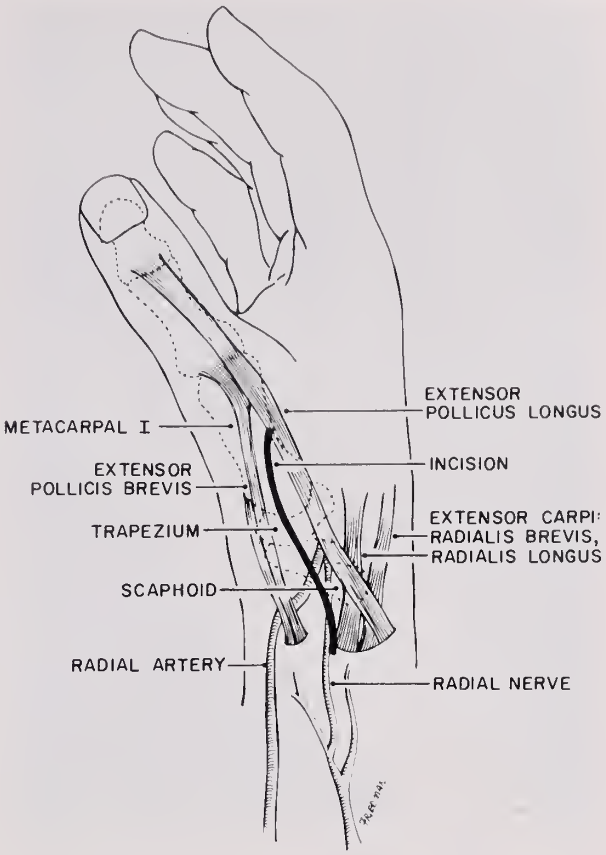

**Fig. 1 Anatomical relationships at the base of the thumb.**

## Diagnosis

The chief symptom of osteoarthritis of the thumb CM joint is pain directly over the joint with secondary loss of motion and strength. Dull pain may be present at rest and becomes acute with movement of the joint, especially when handling small objects. Tenderness, swelling, crepitus or grating and joint instability may be present. Alternate distraction and compression of the trapeziometacarpal joint with slight flexion of the MP joint, followed by axial rotation applied to the thumb, produces severe pain at the CM joint in

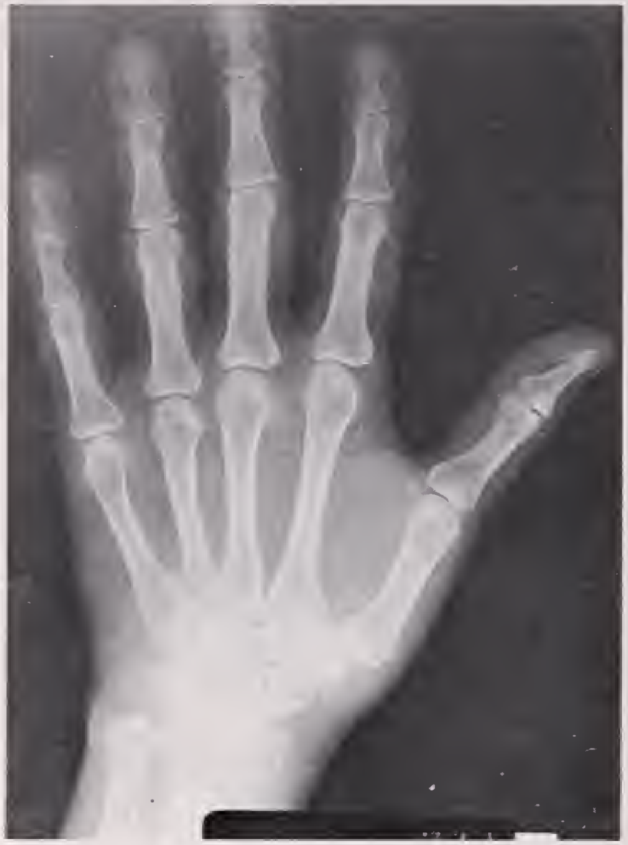

Fig. 2 Typical radiographic changes of osteoarthritis of the thumb CM joint showing narrowing of the joint space, sclerosis of subchondral bone and bone spurs.

the presence of osteoarthritis and is known as the torque test. The fixed deformity of dorsal subluxation of the thumb metacarpal base and ulnar deviation of its head with hyperextension of the thumb MP joint and flexion of the IP joint occurs late in the course of the disease.

Although the production of pain at the base of the thumb by the torque test is said to be pathognomonic of arthrosis of the thumb CM joint,[1] we have found it unreliable in determining the appropriate diagnosis. Pain at the base of the thumb can also be produced with this maneuver in the absence of arthrosis of the CM joint but in the presence of a chronic inflammatory disorder of a tendinous unit in close proximity to the trapezium. Various names have been given to this disorder with stenosing tenosynovitis currently being the most commonly used term. The exact etiology is also unknown, but it is thought to result from acute trauma, recurrent minor trauma (especially repetitive motion) or subclinical collagen disease.[10] Like osteoarthritis, this also is primarily a disease of middle-aged or older women.[11] An initial episode of tenosynovitis is followed by occurrence of stenosis of the tendon sheath, usually at a point where the direction of the tendon changes. The sheath acts as a pulley in this area, producing maximum friction that results in inflammation and subsequent stenosis of the sheath. This occurs most commonly in the first dorsal compartment of the wrist containing the abductor pollicis longus and extensor pollicis brevis tendons (DeQuervain's disease). Less often, it affects the extensor pollicis longus tendon at the level of Lister's tubercle. Involvement of any of the other tendons passing beneath the extensor retinaculum of the wrist within their respective compartments also has been reported.[12] A recent report documents stenosing tenosynovitis of the flexor carpi radialis tendon at the level of the tubercle of the trapezium.[13]

The pain produced by stenosing tenosynovitis of the first, second or third dorsal wrist compartments or of the flexor carpi radialis tendon, therefore, is often indistinguishable from the pain of osteoarthritis of the thumb CM joint. This is due to the proximity of these tendons to the trapezium. Stenosing tenosynovitis also produces secondary loss of thumb motion and strength due to pain.

The diagnosis of osteoarthritis, therefore, must be confirmed by radiographic examination. Of interest is the often poor correlation between the extent of radiographic changes and degree of symptomatology.

## TREATMENT

Treatment of osteoarthritis of the thumb CM joint is directed toward relief of pain while preserving motion and strength of the thumb. Nonoperative measures include splinting, warm compresses and steroid injections into the joint. The latter has been generally ineffective. Splinting at night and warm compresses are effective only in patients with minimal symptoms. Prolonged splinting provides only temporary relief and may result in stiffness of other joints.

When conservative measures have failed and symptoms are disabling (pain or loss of motion or both), surgical treatment is indicated. In the early stages of the disease when discomfort due to joint instability is the only problem and before evidence of loss of articular cartilage is present, some type of surgical procedure to strengthen the joint capsule and stabilize the joint may be beneficial. In later stages of the disease, the choice lies between joint arthroplasty or arthrodesis.

Excision of the trapezium is a type of arthro-

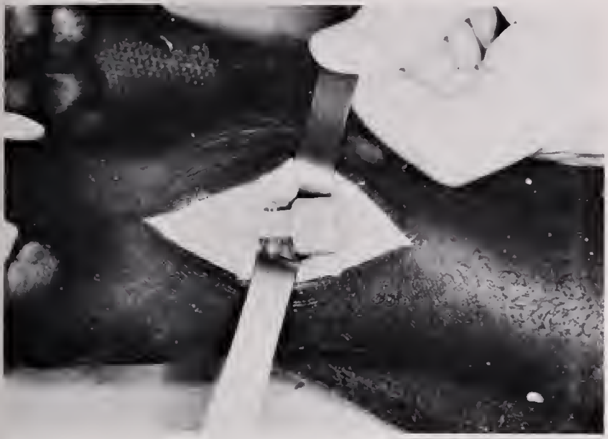

**Fig. 3** Operative view showing insertion of silicone joint spacer to replace trapezium.

plasty which is a relatively simple procedure that relieves pain but leaves the joint unstable and markedly weakens pinch grip.

Arthrodesis of the trapeziometacarpal joint also produces a stable, pain-free joint, but it markedly limits thumb motion. Other disadvantages of arthrodesis are prolonged postoperative immobilization (up to three months) and occasional nonunion.

Resection implant arthroplasty with insertion of a silicone joint spacer to replace the trapezium is now the treatment of choice for osteoarthritis of the thumb CM joint. It produces a stable, pain-free joint and requires only six weeks of postoperative immobilization. Complications of this procedure are infection and subluxation or dislocation of the prosthesis. Infection, although rare, is a major problem requiring removal of the implant. Subluxation or dislocation of the prosthesis is usually related to technique of capsular repair and occurs infrequently when performed properly.

## Operative Technique

Resection implant arthroplasty of the trapezium is performed under general anesthesia and tourniquet control. A longitudinal incision follows the radial border of the extensor pollicis brevis tendon from midmetacarpal to distal radius. Great care is used in dissection and retraction to prevent damage to the sensory branches of the radial nerve. The radial artery is identified and retracted.

A longitudinal incision is made between the extensor pollicis brevis and abductor pollicis longus tendons so that they can be retracted. The capsules of the trapeziometacarpal and trapezioscaphoid joints are incised, reflected and carefully preserved. The trapezium is excised in piecemeal fashion with rongeurs and osteotomes. The base of the thumb metacarpal is planed to produce a smooth, flat surface. A triangular hole is made in the metacarpal base and medullary canal to accept the stem of the silicone prosthesis (Fig. 3).

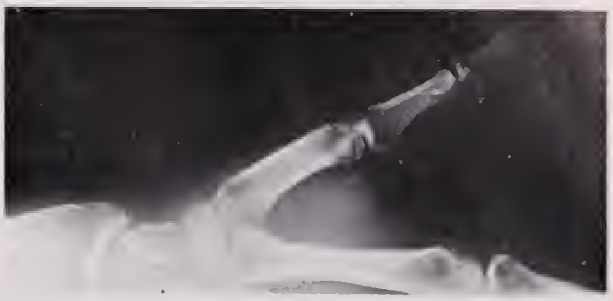

**Fig. 4** Postoperative radiograph showing trapezial implant in place.

Following insertion of the implant, the joint capsule and ligamentous structures about the joint are carefully repaired. Additional capsular support is sometimes required and can be provided with a flap developed from the abductor pollicis longus tendon. Reconstruction of an ulnar oblique ligament between the first and second metacarpals is important in patients with existing dorsal subluxation of the base of the thumb metacarpal and in heavy laborers.

After skin closure, a bulky hand dressing is applied. Three to five days later, the dressing is discarded and a short-arm cast is applied and worn by the patient for four to six weeks. After removal of the cast, the patient begins gentle movement and use of the thumb, progressing to full use in two to three weeks (Fig. 4).

## Summary

Isolated pain at the base of the thumb may be caused by osteoarthritis of the trapeziometacarpal joint, which is primarily a disease of postmenopausal women in whom it may be the first or only symptomatically involved joint. Symptoms may be indistinguishable from stenosing tenosynovitis of any of several tendinous units in close proximity to the trapezium. The diagnosis of osteoarthritis is confirmed by radiographic examination.

Treatment of osteoarthritis of the trapeziometacarpal joint is directed toward relief of pain while preserving thumb motion and strength. Nonoperative measures are usually ineffective in later stages of the disease. Resection

*(Continued on page 563)*

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# Colitis Cystica Profunda

## *Case Report*

COLITIS CYSTICA profunda is a disturbance of rectal function associated with a displacement of colonic glands into the submucosa. The condition occurs mainly as an isolated lesion of the rectum but may be widespread throughout the colon as a consequence of chronic ulcerative colitis. The displaced glands become distended with mucus, and the main importance of the lesion is that it is easily mistaken for mucoid carcinoma. Several unnecessary abdominoperineal resections have been performed on this account. Although the condition is uncommon, a review is useful to clinicians so that they can make the correct diagnosis and to pathologists so that they can avoid a serious mistake.

### CASE REPORT

The patient was a 47-year-old black man who complained of occasional rectal bleeding. He stated that "something had been wrong" with his rectum for the past six years. An examination revealed prolapsed hemorrhoids over which small indurations were palpable. Clinical opinion regarded these as probably carcinoma. The indurations were submitted for frozen section diagnosis. The specimen, S3227-77, revealed an intact mucosa with cysts in the submucosa that measured up to 0.4 cm in diameter and were filled with clear mucin (Fig. 1). The epithelial cells lining these cysts displayed no anaplasia as shown in Fig. 2. Some mucous lakes were devoid of an epithelial lining. At other sites, the lining cells were flat and atrophic. The adjacent connective tissue revealed small clusters of lymphocytes and plasma cells. The diagnosis of colitis cystica profunda was made and the operative procedure was limited to a hemorrhoidectomy. The patient recovered uneventfully.

**Colitis cystica profunda is a displacement of colonic glands into the submucosa, usually of the rectum. The importance of the lesion is that it not be mistaken for carcinoma. Recognizing the condition allows avoidance of abdominoperineal resection since excision is curative. The authors are from the University of Missouri-Kansas City School of Medicine.**

### REVIEW

The first account of mucous cysts of the rectum is attributed to Stark who described two cases in 1766.[1] Nearly a century later, Virchow reported one case and coined the term colitis cystica polyposa.[2] In 1879, Woodward reviewed dysentery in soldiers of the American Civil War and found two additional cases of cysts of the bowel wall.[2] The topic then lay largely unnoticed until 1957 when Goodall and Sinclair in England reawakened interest by their account of two patients, a man of 43 years and a woman of 24 years.[3] These authors abandoned Virchow's term of "colitis cystica polyposa" and introduced the term "colitis cystica profunda." The new term distinguished the condition from colitis cystica superficialis which, as Denton had pointed out in 1925, is characteristic of pellagra.[3] The first report of colitis cystica profunda in the American literature was by Epstein and colleagues in 1966.[4] Since then, many additional cases have been reported.

The incidence of the condition is neither rare nor common. In 1966, Castleman, unaware of the condition, labeled a case as "mucocele of the bowel" and, by astute interpretation of the histologic findings, avoided an operation that would have been suitable for cancer.[5] He regarded the condition as "exceedingly rare." Reviewing all surgical specimens at the Washington University School of Medicine from 1963 to 1973, Tedesca, Sumner and Kassens were able to find only five cases.[6] By 1970, however, Burt, Handler, and Haddad were able to locate 32 reports of which 24 were from the Armed Forces Institute of Pathology.[2] By 1976, Bhuta and Prathikanti cited 49 cases.[7] A cursory review of the literature at this time reveals 70 cases to which the present account is added.[2, 8] This tally does not include the 68 patients of Madigan and Morson who appear to describe the same lesion under the term "solitary

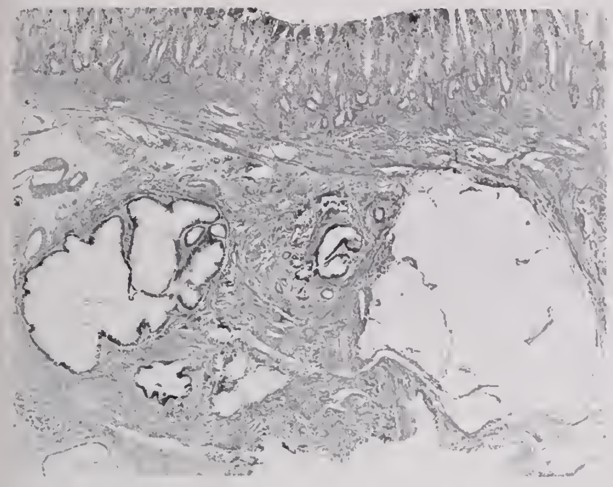

**Fig. 1** Submucosal cysts of the rectum.

ulcer of the rectum."[9] Writing in 1977, Nagasako and colleagues state that "only about ten cases" have been reported in Japan.[10]

Of the 70 cases, nine were diffuse throughout the colon, apparently secondary to chronic ulcerative colitis. The remaining 61 cases with localized disease occurred in 35 men and 26 women. The youngest was 15 and the oldest was 76. The median age was 30, and 45 of the 61 were under 40 years of age. This age distribution is significant because it differs from carcinoma of the colon which presents in late middle age and old age and for which screening detection procedures are not recommended until after the age of 40.[11]

The outstanding symptoms are intermittent rectal bleeding, tenesmus and diarrhea that is often mucoid in character. Rectal prolapse develops less frequently. Protein loss from the mucoid diarrhea may become pronounced[5] and loss of weight may develop.[12] The rectal bleeding is usually slight. Of the 61 patients, four were asymptomatic. While the symptoms are not specific for colitis cystica profunda, it is characteristic that the symptomatic period is prolonged. In the 33 patients who were symptomatic and for whom this information was given, the shortest time was three weeks and the longest was 30 years. The average duration, however, was 3.9 years. In the report of Madigan and Morson for what is evidently the same condition, the average duration of symptoms, i.e., from onset to diagnosis, was 5.3 years.[9] These symptomatic periods are considerably longer than for carcinoma of the colon, and they serve as another clinical alert for the correct diagnosis.

A physical examination reveals single or multiple nodules over which the mucosa is usually

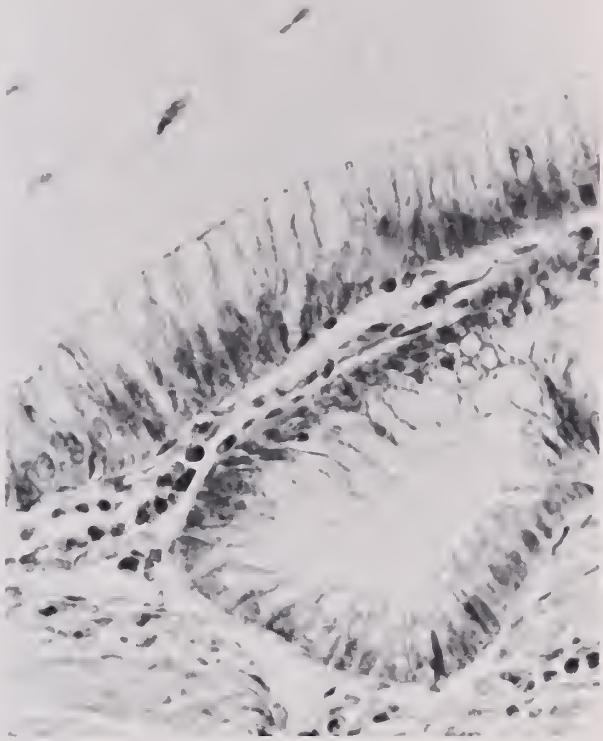

**Fig. 2** Absence of atypia in epithelial cells lining submucosal cysts.

intact but may be ulcerated. The entire lesion rarely exceeds 3 cm in diameter and is located 5 to 12 cm from the anal margin. Wayte and Hellwig point out that the nodules tend to be located on the anterior rectal wall[13] while Nagasako notes that the nodules may be umbilicated as well as ulcerated.[10] In the case of Peypoch, the rectal lesion measured 6 cm in length, extended circumferentially around the rectum and exuded a mucogelatinous material on squeezing.[14]

Grant and Roller state that the radiographic appearance is that of an intraluminal space-occupying lesion that may resemble carcinoma.[15] The distortion is not constant, however, as Green and colleagues found an abnormal barium contrast study in only 18 of 52 cases.[16] Differential diagnoses from both physical and radiographic studies include carcinoid, submucosal lipoma, endometriosis, cystic pneumatosis, adenomatous polyp, bowel wall granuloma, and carcinoma.[3, 8]

After removal, the specimen reveals a mass, polyp or plaque-like thickening of the mucosa that does not exceed 3 cm in diameter.[13] Sections then disclose cysts of the submucosa that are filled with a translucent mucoid material.[4] The cysts do not penetrate the external muscle layers. Microscopically, the cysts are lined by a single layer of normal colonic epithelial cells. It is the absence of anaplasia in the lining cells that distinguishes the condition from mucoid carcinoma. The lining cells may be absent over portions of the cysts and may be flat and atrophic from pressure within the cysts at other sites. The mucin lakes contain occasional leukocytes but not signet ring cells or clusters of anaplastic epithelial cells. These points also are helpful in distinguishing the lesion from cancer as noted by Fechner.[17] Wayte and Hellwig describe fibrosis and leukocytic infiltration in the connective tissue about the cysts,[13] while Epstein and colleagues liken the lesion to the Rokitansky-Aschoff sinuses of the gall bladder, a noninflammatory condition.[4] Allen [8] asserts that the condition has no malignant potential although coexistent carcinoma,[2] coexistent carcinoma-in-situ[7] and carcinoma occurring 11 months after the treatment of colitis cystica profunda have been noted.[18] In one case, the patient's mother had carcinoma of the colon.[15] Several erroneous diagnoses of carcinoma have been made.[3, 4, 10, 13, 17]

Treatment consists of local excision, which is curative, and segmental resection when the lesion occurs in the sigmoid or transverse colon.[2, 7, 19] In the case of Herman and Nabseth, the "shallow diverticulosis" disappeared after a colostomy to relieve symptoms.[20] In the case of Friedman and Tueller, marked improvement followed the use of corticosteroid enemas.[12] Consensus, nevertheless, favors local excision.

The cause of colitis cystica profunda remains unclear. The principal conjectures are that it is either a congenital displacement of rectal mucosa or an acquired displacement resulting from inflammatory disease. In favor of the former are Carstens and Gonzalez who regard the cysts as congenital with secondary infection;[21] Sullivan, Friend and Lee who found defects of the muscularis mucosa which they presumed to be congenital;[22] and Allen who regarded the lesion as a hamartoma.[8] The lesion in an aged goat as an incidental finding gives no strong support to either a congenital or an acquired cause.[23] Against a congenital cause is the observation of Epstein and colleagues that the lesion is not seen in pediatric autopsy examinations.[4] Favor with an acquired cause is somewhat stronger. Scotti,[24] van Kruiningen[25] and Brynjolfsson and Lombard[26] identified the lesions in a wide variety of animals where it was consistently associated with proctitis or prolapse of the rectum. In addition, Brynjofsson and Haley were able to produce the mucosal displacement in rats by exteriorizing a segment of ileum onto the abdominal wall.[1] They attributed the displacement to inflammation, abscess formation and extension of the epithelium into the defects of the wall. All of the patients of Wayte and Hellwig,[13] as well as those of Tedesco and associates,[6] revealed inflammation and fibrosis about the submucosal cysts. These authors, as well as Goodall and Sinclair,[3] believed the cysts to be regenerative phenomena along inflammatory tracts. The sentence of Scruggs and Duckworth expresses the consensus that "The duplication of the lesion in laboratory animals by chronic irritation of the intestine, the lack of this condition in the pediatric age group and the association of mucous cysts within the bowel wall in other inflammatory conditions strongly suggests that the lesion is acquired as the result of longstanding chronic inflammation of the colon, with probably mucosal ulceration and re-epithelialization leading to the subsequent development of the intramural glandular inclusions."[27]

The matter of terminology remains. "Colitis cystica profunda" is not altogether suitable because the rectum is affected more than the colon, the process is not necessarily inflammatory and "profunda" distinguishes from advanced pellagra, a condition that is now virtually nonexistent. Other terms have been used including "ectopic submucosal glands of the rectum,"[28] "hamartomatous inverted polyps of the rectum,"[8] "profound cystic colitis,"[14] "localized submucosal cysts of the rectum"[22] and "enterogenous cysts of the rectum."[29] Since the outstanding feature of the lesion is its similarity to carcinoma, the term "mucoid pseudocarcinoma of the rectum" is tempting. However, it does not seem appropriate to label a condition mainly for what it is not rather than for what it is. Possibly, the term "mucocele," which was originally used by Castleman in a tentative way, is preferable. It is, at least, brief and does not presume a cause.

## SUMMARY

Colitis cystica profunda is a displacement of colonic glands into the submucosa, usually of the rectum. The symptoms are diarrhea, tenesmus and blood in the stool. The importance of the lesion is that it not be mistaken for carcinoma. Two clinically distinguishing features from cancer are that it occurs in younger patients and the symptomatic period tends to last longer. The anatomical distinction is the absence of atypia in

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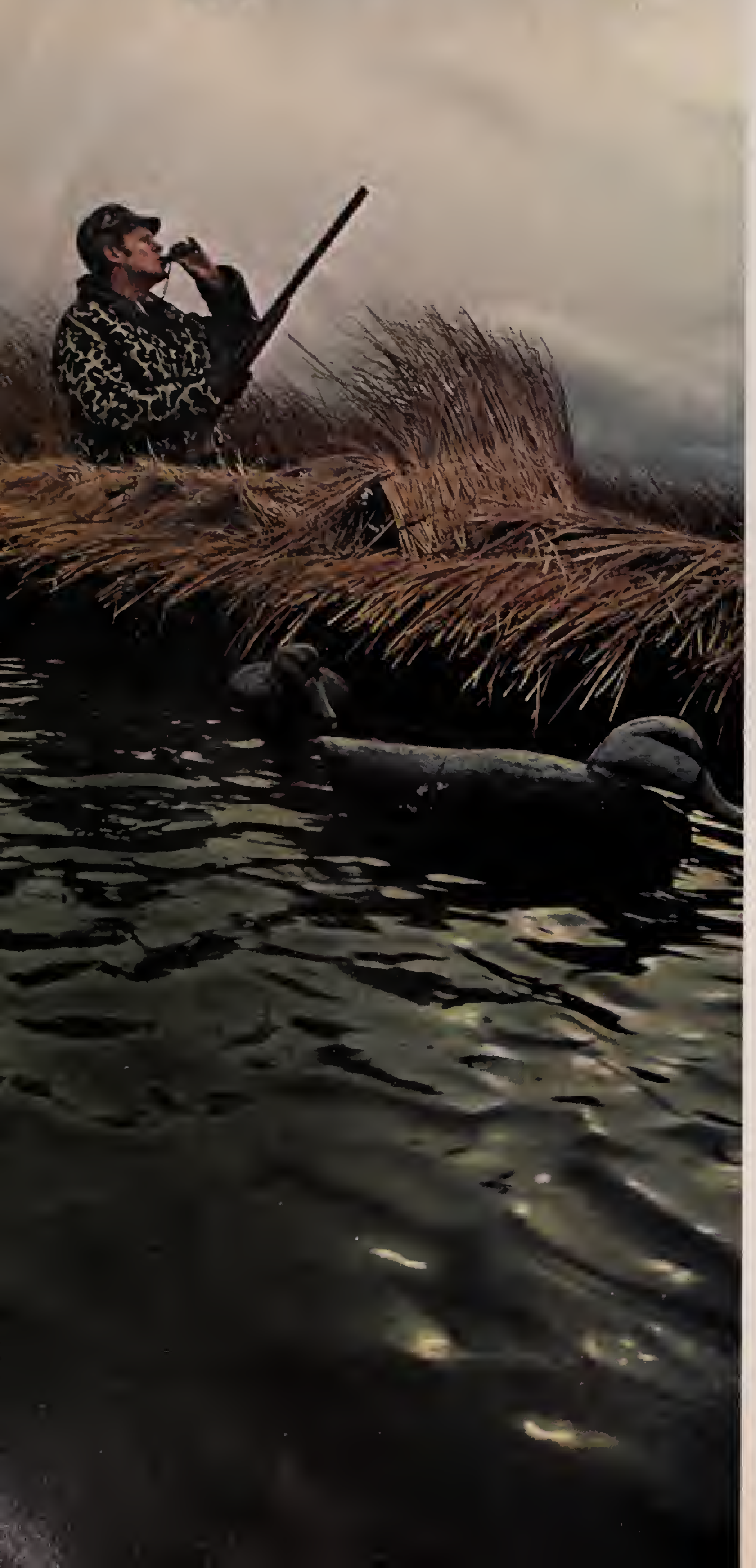

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the epithelial cells lining the cysts. Recognizing the condition allows abdominoperineal resection to be avoided since excision is curative.

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# *Pain at the Base of the Thumb*

*(Continued from page 559)*

implant arthroplasty of the trapezium with insertion of a silicone joint spacer provides a pain-free, stable joint with minimal complications.

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*The function of socialism is to raise suffering to a higher level.* — NORMAN MAILER

JAMIL A. FAYEZ, M.D., HARRY S. JONAS, M.D.
*and* BYRON J. MASTERSON, M.D., *Kansas City*

# Neoplastic Potential of the Dysgenetic Gonad

## *Case Report*

GONADAL ABNORMALITIES are responsible for 60% of the cases of primary amenorrhea.[1] Abnormalities in gonadal development range from complete agenesis to only minor ovarian or testicular defects depending on the number of germ cells migrated to the gonadal ridge and on the stage of gonadal development at which arrest took place.[2] Streak gonads are usually made of fibrous tissue and, therefore, are endocrinologically inert.

Occasionally, there have been reports of estrogenic or androgenic activity in rudimentary streak gonads.[3] This hormonal activity, when it occurs in the absence of a discrete tumor mass, is usually the result of viable cellular tissue stimulated by high gonadotropin levels. The cellular elements could be in the form of ovarian follicles scattered in the scanty ovarian stroma or hilus (Leydig) cells within the hilum of the streak. The marked elevation of gonadotropins seen in these patients may be responsibe for stimulating these viable cells to steroid and neoplastic activity.[4]

The gonads of patients with XO karyotype rarely undergo neoplastic changes and, therefore, gonadectomy is not justified unless virilization or other abnormalities develop.[5] Patients with XY genotype or XO/XY mosaic genotype with gonadal dysgenesis may develop gonadal tumors, usually in the form of gonadoblastomas.[6] Therefore, a gonadectomy is indicated for patients with gonadal dysgenesis who show evidence of virilization or who have a Y sex chromosome in their karyotype. Such a condition is described in this report and a review of the literature is presented.

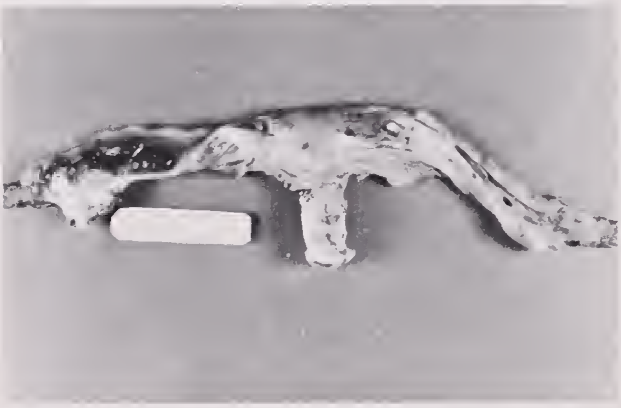

**Fig. 1** Poster view of gross surgical specimen shows bilateral gonadoblastoma in the gonadal streaks.

### CASE REPORT

The patient is a 16-year-old, white girl who had primary amenorrhea. She was the product of a normal pregnancy and has a sister who began menstruating at the age of 13. Past and family histories were noncontributory.

The patient weighed 145 lb and was 5 feet 9 inches in height. Her breasts were immature. She had immature external genitalia, no pubic hair and the clitoris was small. A cervix and uterus were present. No adnexal masses were palpated.

The karyotype was reported as 46/XY. Results of all laboratory tests, including T3 and T4, plasma testosterone, 17-KS and 17 OHCS, were within normal limits. Serum FSH and LH were 56 mIu/ml and 50 mIu/ml, respectively. The intravenous pyelogram (IVP) was normal.

Because of the lack of secondary sex characteristics coupled with 46/XY karyotype, the diagnosis of pure gonadal dysgenesis was considered. An exploratory laparotomy showed an infantile uterus; the tubes were long and attenuated. Streak gonads were identified in the position of normal ovaries. A frozen section biopsy specimen from the left gonad was reported to be gonadoblastoma. A total abdominal hysterectomy and bilateral salpingogonadectomy were performed. The patient received 1.25 mg of Premarin cyclically and has developed almost normal secondary sexual characteristics.

The specimen (Fig. 1) was described by the pathologist as an infantile uterus (cervix measured 3.4 cm and body was 1.8 cm in length). The tubes were described as grossly normal and 10 cm in length. Each gonad measured 2.2 cm x 1.6 cm x 0.8 cm in overall extent. The cut surface presented finely granular calcific areas. Embedded in both gonads were calcified nodules 1.5 cm in diameter. Microscopically bilateral gonadoblastomas were diagnosed with the following cell types described in their order of frequency: germ cells, sertoli-granulosa cells and Leydig cells (Fig. 2). Many of the cell masses described presented numerous rounded, calcific deposits.

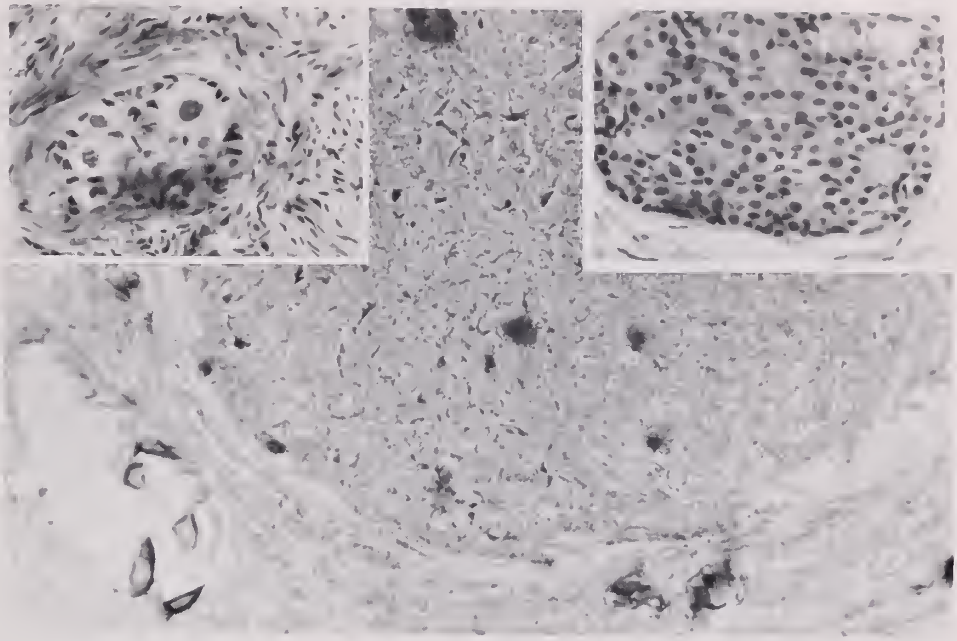

**Fig. 2 Histologic aspect of gonadoblastoma shows germ cells *(left insert)*, granulosa cells *(right insert)*, Leydig cells and foci of calcification.**

## Discussion

Gonadal dysgenesis comprises a heterogeneous group with varying types of gonadal morphology, different forms of somatic maldevelopment and a spectrum of chromosomal constitutions. Common to the group is the complete or partial development of the Müllerian duct derivatives.[7] Our patient has a male genotype (XY), but a female phenotype. This discordance has been studied previously.[5] Normally, a gene or a set of genes on the Y chromosome causes the embryonic gonad to develop as a testis. The replacement of the testes by dysgenetic gonads in this patient is probably due to a viral or chemical insult during embryonic life. Due to the absence of normal testes, the androgens and the testicular factors influencing development of the reproductive tract are lacking. Absence of testosterone leads to the development of female external genitalia, whereas absence of the Müllerian inhibiting factor leads to retention and development of the uterus and fallopian tubes.

It has long been recognized that the dysgenetic gonads have a propensity to undergo neoplastic degeneration, particularly with the formation of gonadoblastoma or dysgerminoma.[6] These neoplastic changes usually occur in the gonads of those phenotypic women with a Y chromosome and rarely in those without the presence of a Y chromosome.[8]

The eunuchoidal features, high gonadotropin titers and the male karyotype in this patient led us to diagnose pure gonadal dysgenesis. A total abdominal hysterectomy and bilateral salpingo-gonadectomy were planned due to the higher incidence of neoplasms in patients with gonadal dysgenesis who demonstrate a Y sex chromosome.

We recommend a flat plate x-ray of the lower abdomen for such patients because it is believed that the single, most helpful diagnostic factor in detecting a gonadoblastoma is the stippled pattern of tumor calcification seen on radiography of the pelvis.[9] Gonadal calcification was visible both grossly and microscopically in the gonadoblastomas removed from our patient. No other gonadal tumor has been described which calcifies in such a distinctive manner. Since the gonadoblastoma is generally small in size, is slow growing

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**The potential of malignancy of the dysgenetic gonad is stressed by the authors in this article which includes a case report of gonadal dysgenesis associated with neoplastic changes in a phenotypic 16-year-old girl. They emphasize that an early diagnosis and appropriate management are the two factors that make the difference in the progress of the patient.**

**Dr. Fayez is Chief, Section of Reproductive Endocrinology; Dr. Jonas is Chairman, Department of Obstetrics and Gynecology; and Dr. Masterson is Chief, Oncology Section, Truman Medical Center. Dr. Fayez and Dr. Jonas are also professors, University of Missouri-Kansas City School of Medicine.**

and appears to possess low malignant potential, the patient usually does not demonstrate symptoms or signs relating to a tumor mass.

Although gonadoblastomas have the potential of endocrine function, not all of them exercise hormonal activity, a condition exemplified by our patient. Scully[10] reported that in a series of 74 cases of gonadoblastomas in phenotypic females with Y chromosomes, some were nonvirilized and others have shown some estrogen secretion. The gonadoblastomas we removed had a significant number of Sertoli-granulosa cells and Leydig cells and, yet, they were hormonally inert. The virilization seen in some patients with this tumor and its absence in others has been difficult to explain. Leydig cell component of the tumor has been thought to be responsible in certain patients for the presence of androgenic activity.[3] Others believe that the hormonal activity may occur as the result of a stromal reaction to the presence of the tumor. McDonough *et al*,[4] in studying a similar case, were unable to make any precise correlation between the cellular components of the tumor, steroid activity and clinical phenotype.

This patient, who showed no evidence of steroid activity in her gonadoblastoma, serves as a reminder that one cannot await the onset of virilization in an individual having a Y chromosome as evidence that a tumor is present. Based on clinical experience and a review of the literature, we strongly recommend that phenotypic women who have a Y sex chromosome should have a total abdominal hysterectomy and bilateral gonadectomy.

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# President's Message

John N. Martin, M.D.

Here are a few dribbles for you. Of course, you all know that the Urologist's theme song is "I Cover the Waterfront."

After a long, windy political campaign, one can see how it is hard for an empty bag to stand upright.

The election has been decided. Now, it's time to reassess the promises that were made by the winners.

Politics is expensive as we now learn that $149 million was spent during this last election. However, it does not cost anything to talk to your elected officials.

Consultation is our bag and giving such to our legislators may be the best second opinion they will receive. Conversation is what we want, but repartee may be what we will have to give at times.

Who was it who said, "The difference between a politician and a statesman is that the politician thinks of the next election while the statesman thinks of the next generation." Using the fingers on your left hand, count the statesmen in Congress.

You have all heard that "Money Talks," but your PAC has only been able to whisper. Think about how loud we could shout if all MSMA members would join the PAC.

If MOMEDICO is a strange word to you, it should not be since it is your liability insurance company. To know more about it, contact the MSMA office. If you think a company is worth knowing at all, it's worth knowing well.

Sorry all of you could not attend the interim meeting in Cape Girardeau. The Cape County Medical Society and its Auxiliary were wonderful hosts, the weather was super and the meeting was productive.

In spite of the government, we are still physicians . . . and why? Emily Dickinson wrote:

If I can stop one heart from breaking,
I shall not live in vain;
If I can ease one life the aching,
Or cool one pain,
Or help one fainting robin
Unto his nest again,
I shall not live in Vain.

In Cicero's time, there were physicians and no bureaucrats because he wrote, "In nothing do men more nearly approach the gods than in doing good to their fellow men." Gods we know we are not; the bureaucrats still think they are.

I'm reminded of what Carmina Horace said, "Mingle a little folly with your wisdom; a little nonsense now and then is pleasant."

This I believe . . . a third party is about as unpopular in medicine as in love.

From our house to yours, Margaret and I wish you and yours "Happy Holidays." Cheers!!!

# MSMA Auxiliary

## DO YOU UNDERSTAND THE MSMF?

During the recent Auxiliary Fall Conference in St. Joseph, Dr. Gary Dyer, vice-councilor for the MSMA First District, appeared on our program on behalf of the Missouri State Medical Foundation, the MSMA student loan fund. He described its value and vital importance to Missouri students in need of financial assistance to complete their medical educations.

Mrs. A. J. Campbell
President

Since Dr. Dyer related his own experience as a MSMF student loan recipient, his message was especially meaningful and impressive. Multiplying his experience by those of the other 571 student loan recipients makes it easier to fully comprehend the scope of the Foundation's objectives and accomplishments. To date, 1,598 loans totalling $981,960 have been granted.

Please let me share the following information with you.

After satisfactorily demonstrating a financial need, a student may receive a maximum loan of $750 per semester for a total of $1,500 per year. The low interest rate provides a prime advantage of acquiring these funds from the MSMF. The interest accrues at the rate of 2% per year from the date the loan is issued through one year after the date the recipient begins the practice of medicine.

The interest will appreciate to a maximum rate of 8%. This compares more than favorably to some comparable student loan programs in which the interest fluctuates with the current prime interest rate which is now from 10% to 10.5%.

The recipients of MSMF loans are not required to begin repayments until they have completed one year in private practice and, then, they have four years to repay the loan. However, it is not uncommon to find that several other programs require that interest on the outstanding balance be repaid annually.

You will be interested in the following comments from two of the recipients who have expressed their appreciation:

> ". . . I remember how grateful I was to be able to get the loans when I needed them, most particularly at the low interest rates."

> "I can well remember the feeling of destitution associated with being a reasonably good student but lacking funds with which to enroll for the next semester of medical school. Without your help . . . I simply would not have made it through medical school."

Since the number of applications for MSMF student loans now far exceeds available funds, I strongly urge all Auxiliary members to wholeheartedly support the MSMF with their regular personal contributions. Also, please think of the MSMF when you are contributing memorials and in your will.

# County Society News

## FIRST DISTRICT

COUNCILOR
RICHARD C. HEDGES, M.D.,
EXCELSIOR SPRINGS

### Buchanan County Medical Society

Dr. Peter Konig, assistant professor of the Department of Child Health at the University of Missouri-Columbia, was the speaker at the October 4 meeting of the Buchanan County Medical Society.

Dr. Konig discussed "Prophylaxis of Asthma With Beclomethasone Dipropionate."

Dr. Lucien Ide introduced the speaker. Dr. Edmund Kline, president, presided at the session.

Mr. Don Wilson, MSMA Field Representative, attended the meeting and spoke about Association matters.

Thirty-five physicians attended the program which followed a dinner at the Swiss Chalet.

R. Philip Acuff, M.D., *Secretary*

## SECOND DISTRICT

COUNCILOR
JOHN H. WALTERSCHEID, M.D.,
HANNIBAL

### Chariton-Macon-Monroe-Randolph County Medical Society

The Chariton-Macon-Monroe-Randolph County Medical Society held its regular meeting on October 12 in the Library Conference Room of Woodland Hospital in Moberly.

The minutes of the last meeting were read and approved. The slate of officers for 1979 presented by the nominating committee was unanimously elected. They are as follows:

Dr. D. D. Stuart, president; Dr. G. R. Hudson, vice-president; and Dr. R. L. Bautista, secretary-treasurer.

Delegates and alternate delegates to the MSMA were elected as follows:

*Chariton County*, Drs. R. V. Thompson and H. T. Lin; *Macon County*, J. E. Campbell and D. E. Eggleston; *Monroe County*, F. A. Barnett and C. H. Lin; *Randolph County*, C. C. Cohrs and W. D. Chute.

Members of the Board of Censors are D. D. Stuart (4 years), *Chariton County;* J. E. Campbell (one year), *Macon County;* F. A. Barnett (two years), *Monroe County;* and W. D. Chute (three years), *Randolph County.*

Dr. Garth Russell of Columbia was introduced as the speaker for the evening by Dr. G. R. Hudson, program chairman. An orthopedist, Dr. Russell opened his talk with a brief discussion of his recent illness of hepatitis, which was caused by bone cement he had been using in total hip replacements. He has recovered and has resumed his practice.

In discussing his topic, "Sports Injury," Dr. Russell emphasized that many changes have taken place in treating sports injuries during the past three or four years.

He discussed the various aspects of injuries to the foot, ankle and knee. He also discussed the cause and treatment of shin splints, which joggers and distance runners are prone to develop.

A question-and-answer period followed Dr. Russell's presentation.

Members present were Drs. Antonio Aguilera, J. I. Bangash, R. L. Bautista, W. D. Chute, C. C. Cohrs, J. Will Fleming, Jr., T. S. Fleming, L. E. Huber, G. R. Hudson, C. H. Lin and H. T. Lin, Moberly; F. A. Barnett, Paris; J. E. Campbell and D. S. Shin, Moberly; and P. V. Dreyer, Huntsville. Dr. Lepold LeChance of Centralia was a guest.

The meeting adjourned at 8:25 PM.

G. R. Hudson, M.D., *Secretary*

# In Memoriam

**Harold A. Goodrich,** M.D., 52 S. Rock Hill Rd., Webster Groves 63119; a graduate of Washington University, 1913; member of St. Louis County Medical Society; age 88; died Sept. 18, 1978.

**Frank Cleary,** M.D., 5247 Mardel, St. Louis 63110; a graduate of St. Louis University, 1932; member of St. Louis Medical Society; age 71; died Sept. 27, 1978.

**George Callman,** M.D., 1303 N. 43rd, St. Joseph 64502; a graduate of Friedrich Wilhelms University, 1920; member of Buchanan County Medical Society; age 85; died Sept. 27, 1978.

**Ozgoncu Kamuran,** M.D., 322 Laduemont, Creve Coeur 63141; a graduate of Tip Fakultesi Istanbul Universitesi, 1951; member of St. Louis County Medical Society; age 51; died Oct. 3, 1978.

# in Brief

## A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street
Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

"**THE DESIGN** of the voluntary effort addresses the unique problems of its own field better than any other effort the Council on Wage and Price Stability has seen," COWPS chairman Barry Bosworth told a meeting of the Voluntary Effort Steering Committee last week in Washington, D. C. The VE was organized by the American Hospital Association, the Federation of American Hospitals and the AMA late last year with a goal of reducing the rate of increase in hospital expenditures by 2% a year for the next two years. During the first seven months of 1978, the rate of growth of hospital expenditures was the lowest since 1974. "Hospitals are one of the very few industries in which deceleration has succeeded," Bosworth said, "and this is significant considering the rate of inflation in the rest of the economy."

**DISCUSSIONS** between AMA officials and top management of 28 major corporations have taken place under the Association's Corporate Visitation Program. The meetings, which are held at the corporations' headquarters, center on the cost of health care, employers' health care benefits packages and the physician's role in cost containment. Since the program began on June 5, AMA representatives have met with corporate leaders in the automobile, steel, aerospace, oil, food, and communications industries.

**REVISIONS** to the physician's *Current Procedural Terminology* are available. The new update to the book, published by the AMA, includes changes and additions to the terminology in the fields of surgery, vascular studies and medical service procedures. Also added are terms for bio-feedback training. Updates may be obtained by using a prepaid mailer in the back of the book.

**ALL THREE VOLUMES** of the report of the National Commission on the Cost of Medical Care may be purchased as a set (OP 58) for $25. Each of the hardbound volumes sells separately for $10 per copy — Vol. I(OP 26), Vol. II(OP 36) and Vol. III(OP 32). To order, write to AMA Order Dept., P.O. Box 821, Monroe, Wis. 53566.

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**Brief Summary**
**INDICATION**: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.
**CONTRAINDICATIONS**: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).
**WARNINGS**: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children*: Tenuate is not recommended for use in children under 12 years of age.
**PRECAUTIONS**: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.
**ADVERSE REACTIONS**: *Cardiovascular*: Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System*: Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal*: Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic*: Urticaria, rash, ecchymosis, erythema. *Endocrine*: Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System*: Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous*: A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.
**DOSAGE AND ADMINISTRATION**: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.
**OVERDOSAGE**: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

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References: 1. Citations available on request—Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M. A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.

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# New Members

**John Aldridge,** M.D., 2526 Prospect, Kansas City 64127, has become a member of Jackson County Medical Society. Dr. Aldridge is a native of Ruleville, Miss., received his preliminary education at Tennessee State University and his M.D. degree at Meharry Medical College in 1972. He specializes in obstetrics and gynecology.

**Mehmet Vehbi Baskurt,** M.D., VA Hospital, Dept. of Radiology, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Baskurt is native of Kirklareli, Turkey, received his preliminary education at Faculty of Sciences of Istanbul University and his M.D. degree at Istanbul University in 1951. He specializes in diagnostic radiology.

**William W. Benedict,** M.D., 522 N. New Ballas Rd., Creve Coeur 63141, has become a member of St. Louis County Medical Society. Dr. Benedict is a native of Berea, Ohio, received his preliminary education at the University of Illinois and his M.D. degree at Washington University in 1975. He specializes in internal medicine.

**Michael Ray Butner,** M.D., 370 S. Odell, Marshall 65340, has become a member of Saline County Medical Society. Dr. Butner is a native of Macon, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1975. He specializes in family practice.

**Dwight Cashier,** M.D., 2709 Hospital Dr., Kansas City 64116, has become a member of Clay County Medical Association. Dr. Cashier is a native of Shawnee Mission, Kan., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1976. He specializes in family practice.

**Soo Il Cho,** M.D., 2601 N. Whittier, St. Louis 63113, has become a member of St. Louis County Medical Society. Dr. Cho is a native of Seoul, Korea, received his preliminary education at Catholic Medical College and his M.D. degree at Catholic Medical College in 1968. He specializes in urology.

**Paul W. Clarke,** M.D., 3120 Kage Hill Dr., Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Clarke is a native of Cairo, Ill., received his preliminary education at Texas A & M College and his M.D. degree at the University of Texas in 1974. He specializes in obstetrics and gynecology.

**William A. Emerson,** M.D., 11150 Dunn Rd., Suite 105, St. Louis 63136, has become a member of St. Louis County Medical Society. Dr. Emerson is a native of Colfax, Wash., received his preliminary education at the Massachusetts Institute of Technology and his M.D. degree at the University of Washington in 1966. He specializes in internal medicine.

**Don G. Fortin,** M.D., Westowne VII, Suite 702, Liberty 64068, has become a member of Clay County Medical Association. Dr. Fortin is a native of Kansas City, received his preliminary education at the University of Notre Dame and his M.D. degree at the University of Kansas in 1973. He specializes in plastic and reconstructive surgery.

**Robert H. Haas,** M.D., Suite R, Westowne Offices, Liberty 64068, has become a member of Clay County Medical Association. Dr. Haas is a native of Fort Dodge, Iowa, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1972. He specializes in orthopedics.

**Joseph J. Hurley,** M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Hurley is a native of Richmond Heights, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1971. He specializes in general surgery.

**Nelson E. Johnson,** M.D., 4301 Cleveland, Kansas City 64130, has become a member of Jackson County Medical Society. Dr. Johnson is a native of Topeka, Kan., received his preliminary education at Northwestern University and his M.D. degree at Howard College of Medicine in 1974. He specializes in obstetrics and gynecology.

**Magda Kepes,** M.D., Dept. of Pathology, Lakeside Hospital, 8701 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Kepes is a native of Budapest, Hungary. He received his M.D. degree at the University of Budapest in 1951. He specializes in pathology.

**Chul Kim,** M.D., 217 Oak, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-

Carter County Medical Society. Dr. Kim is a native of Chonbuk, Korea, received his preliminary education at Chon Nam University and his M.D. degree at Chon Nam University in 1967. He specializes in internal medicine and endocrinology.

**Joyce M. Lees,** M.D., Trinity Lutheran Hospital, 31st & Wyandotte, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Lees is a native of Philadelphia, Miss., received her preliminary education at the University of Alabama and her M.D. degree at the University of Alabama in 1968. She specializes in emergency medicine.

**Bruce Lerner,** M.D., Suite 12, 751 E. 63rd, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Lerner is a native of Joplin, received his preliminary education at Washington University and his M.D. degree at the University of Kansas in 1974. He specializes in anesthesiology.

**George Clinton McAnelly, Jr.,** M.D., 217 Oak, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. McAnelly is a native of Stillwater, Okla., received his preliminary education at Oklahoma State University and his M.D. degree at the University of Oklahoma in 1968. He specializes in urological surgery.

**Richard A. Martin,** M.D., 605 Red Bud Circle, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Martin is a native of Scottsbluff, Neb., received his preliminary education at Nebraska Wesleyan University and his M.D. degree at the University of Nebraska in 1971. He specializes in otolaryngology.

**A. L. Nagy,** M.D., Poplar Bluff Hospital, Poplar Bluff 63901, has become a member of y. Dr. Nagy is a native of Hungary, received his preliminary education at the English College and his M.D. degree at the Medical School of Budapest in 1954. He specializes in emergency medicine, psychiatry and neurology.

**Vidya Sharma,** M.D., Children's Mercy Hospital, 24th and Gillham, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Sharma is a native of Bangalore,

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India, received his preliminary education at the H. P. T. College and his M.D. degree at the Armed Forces Medical College in 1970. He specializes in pediatrics.

**Ronald G. Shriver,** M.D., 1538 Parksite, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Shriver is a native of Fulton, received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1970. He specializes in diagnostic radiology.

**Kevin B. Smith,** M.D., 14382 Woodlake Dr., Chesterfield 63017, has become a member of St. Louis County Medical Society. Dr. Smith is a native of Indianapolis, Ind., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1975. He specializes in family practice.

**William A. Solomon,** M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Solomon is a native of New York, received his preliminary education at New York University and his M.D. degree at the University of Colorado in 1976. He specializes in internal medicine.

**Premsri Tangshewinsirikul,** M.D., 1515 Lafayette, St. Louis 63104, has become a member of St. Louis County Medical Society. Dr. Tangshewinsirikul is a native of Korat, Thailand. He received his M.D. degree at Ramathibodi Hospital School of Medicine in 1973. He specializes in radiology.

**John J. Thole,** M.D., Thompson Brumm Knepper Clinic, St. Joseph 64502, has become a member of Buchanan County Medical Society. Dr. Thole is a native of Breese, Ill., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1972. He specializes in obstetrics and gynecology.

**James D. True,** M.D., Tri-County Community Mental Health Center, 2900 Hospital Dr., Kansas City 64116, has become a member of Clay County Medical Association. Dr. True is a native of Topeka, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1973. He specializes in psychiatry.

*(Continued on next page)*

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**Paul Barto Vatterott, Jr.**, M.D., 456 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis County Medical Society. Dr. Vatterott is a native of St. Louis, received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1974. He specializes in internal medicine.

**Lewis D. Yecies**, M.D., 660 S. Euclid Ave., St. Louis 63126, has become a member of St. Louis County Medical Society. Dr. Yecies is a native of Newark, N. J., received his preliminary education at the University of Pennsylvania and his M.D. degree at the University of Pennsylvania in 1967. He specializes in internal medicine, allergy and immunology.

**John T. Watson**, M.D., 6712 N. Walrond, Kansas City 64119, has become a member of Clay County Medical Association. Dr. Watson is a native of Troy, N. Y., received his preliminary education at State University of New York and h M.D. degree at Upstate Medical Center in 196 He specializes in family practice.

**John Michael Webb**, M.D., 2700 Hospital Dr Suite 525, N. Kansas City 64116, has become member of Clay County Medical Association. D Webb is a native of Gardenia, Calif., received h preliminary education at Kirksville State Colleg and his M.D. degree at the University Missouri-Columbia in 1972. He specializes i surgery.

**Paul D. Wheeler**, M.D., 2700 Hospital Dr. Suite 500, Kansas City 64116, has become member of Clay County Medical Association. D Wheeler is a native of El Dorado, Ark., receive his preliminary education at the University Missouri and his M.D. degree at the University Missouri in 1974. He specializes in obstetrics an gynecology.

*The most beautiful and most profound emotion we can experience is the sensation of the mystical. It is the sower of all true science. He to whom this emotion is a stranger, who can no longer wonder and stand rapt in awe, is as good as dead.* — Albert Einstein

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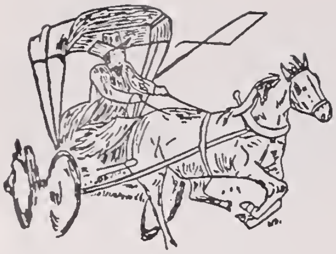

# *Missouri Medicine in Review*

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

The Southeast Missouri Medical Society held its 62nd annual meeting in Poplar Bluff on October 11-12. Dr. H. M. Henrickson, Poplar Bluff, presided. Dr. George W. Vinyard, Jackson, the only charter member of the Society now living, was present.

Officers elected were Drs. B. J. Macauley, Poplar Bluff, president; D. E. Smith, Bonne Terre, vice-president; John D. VanCleve, Malden, treasurer; J. J. Bredall, Perryville, recording secretary; and M. H. Shelby, Cape Girardeau, corresponding secretary.

The Cape Girardeau Medical Society met at the Colonial Tavern in Cape Girardeau on October 10. Members were happy to see Dr. D. H. Hope resume the chair after his recovery from a serious illness. Members present were Drs. G. J. Tygett, G. W. Walker, J. H. Cochran, A. L. Fuerth, C. T. Herbert, W. F. Oehler, H. V. Ashley, O. L. Seabaugh, C. A. W. Zimmerman and D. H. Hope of Cape Girardeau; D. I. L. Seabaugh, of Jackson; and Edward Crites of Sedgewickville.

The Buchanan County Medical Society met at the Missouri Methodist Hospital on September 7. In the absence of the president and vice-president, Dr. W. T. Elam was elected chairman pro tem.

Dr. Elam introduced Dr. E. F. Cook who, in turn, introduced the following candidates for office this fall: Judge Ben F. Stanton, Gus Hillix and Mr. Smith, candidates for county judge; Maurice Hoffman, candidate for prosecuting attorney; and Francis Smith, candidate for the Missouri Senate. All candidates expressed their willingness to cooperate in furthering legitimate medical legislation.

## TWENTY-FIVE YEARS AGO

Officers of the Jackson County Medical Society who were recently installed are Dr. Donald F. Coburn, president; Dr. James A. Jarvis, president-elect; Dr. William B. Cheeseman, secretary; and Dr. Clifford C. Wilson, treasurer.

Dr. Hugh Stephenson, Jr., M.D., has been appointed assistant professor of surgery at the University of Missouri School of Medicine. Dr Stephenson is a graduate of the University, was a resident at Barnes Hospital in St. Louis and, more recently, chief surgical resident at Bellevue Hospital.

William D. Shaw, M.D. of Fayette was elected president of the Missouri State Board of Medical Examiners at a recent meeting.

The only organized chapter of the American College of Surgeons in Missouri, the Southwest Chapter, held its charter presentation meeting in Joplin. Officers are Dr. Winifred Post of Joplin, Dr. Durwood Hall of Springfield and Dr. H. A. Lowe, Sr. of Springfield.

## TEN YEARS AGO

Dr. Stan London, St. Louis, who was an associate of the late Dr. I. C. Middleman, will succeed him as team physician for the St. Louis Cardinals baseball team. A former Washington University basketball and baseball star, Dr. London served as team physician for the Hawks during their 13-season period in St. Louis. Both he and Dr. Middleman were team physicians for the St. Louis soccer Stars the past two seasons.

Dr. George Lynn Watkins, Farmington, was named an outstanding citizen of his community recently.

The West Central Missouri Medical Society held its annual meeting of area physicians and coaches on August 29 in Nevada. Fifty-two doctors and coaches were present. The Society was honored to have as a special guest Dr. David N. Kerr of St. Louis, president of the Missouri State Medical Association.

Dr. Carl Almond of the Department of Surgery, University of Missouri Medical Center in Columbia, received an American Medical Association Certificate of Humanitarian Service at a recent meeting of the Boone County Medical Society.

**Before prescribing, please consult complete product information, a summary of which follows:**

The effectiveness of Valium (diazepam) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the ndividual patient.

**Contraindications:** Tablets in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in ieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

NJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local rritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion ubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest; concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea; have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least 1/3, administer in small increments. Should not be administered o patients in shock, coma, acute alcoholic intoxication with depression of ital signs.

Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status.

Withdrawal symptoms (similar to those with barbiturates, alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal/muscle cramps, vomiting, sweating). Keep addiction-prone individuals nder careful surveillance because of predisposition to habituation/ ependence. Not recommended for OB use.

fficacy/safety not established in neonates (age 30 days or less); pro-onged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be epeated after 15 to 30 minutes. If no relief after third administration, ppropriate adjunctive therapy is recommended.

**recautions:** If combined with other psychotropics or anticonvulsants, arefully consider individual pharmacologic effects—particularly with known ompounds which may potentiate action of Valium (diazepam), *i.e.*, henothiazines, narcotics, barbiturates, MAO inhibitors and antidepres-ants. Protective measures indicated in highly anxious patients with ac-ompanying depression who may have suicidal tendencies. Observe usual recautions in impaired hepatic function; avoid accumulation in patients ith compromised kidney function. Limit oral dosage to smallest effective mount in elderly and debilitated to preclude ataxia or oversedation (ini-ally 2 to 2½ mg once or twice daily, increasing gradually as needed or lerated).

INJECTABLE: Although promptly controlled, seizures may return; readminister if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

**Adverse Reactions:** Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported; should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam) therapy and are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

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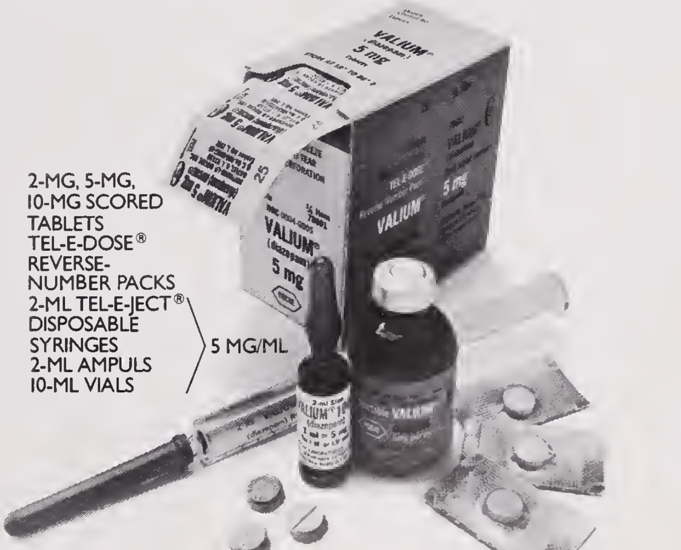

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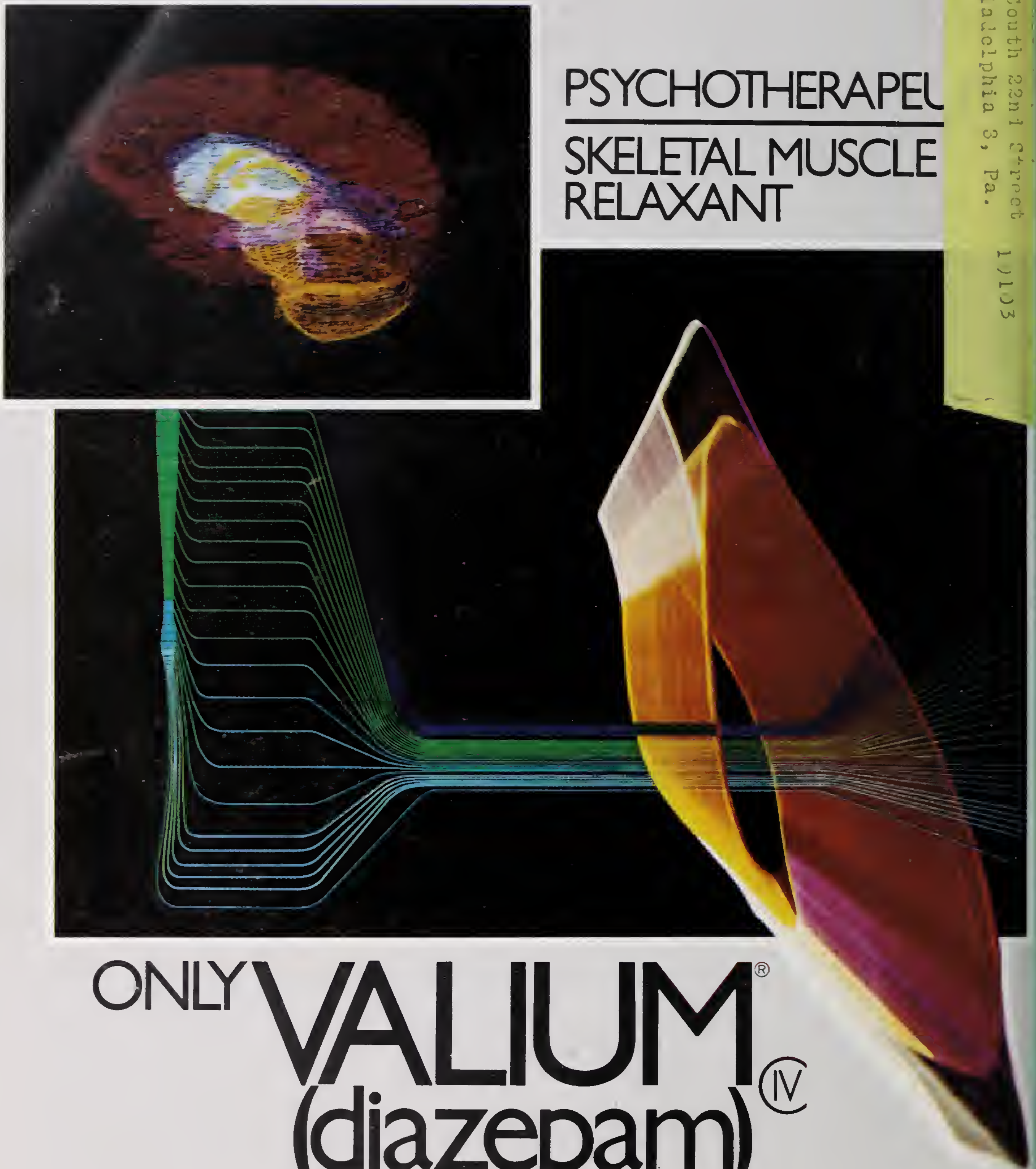

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VOLUME 75, NUMBER 12

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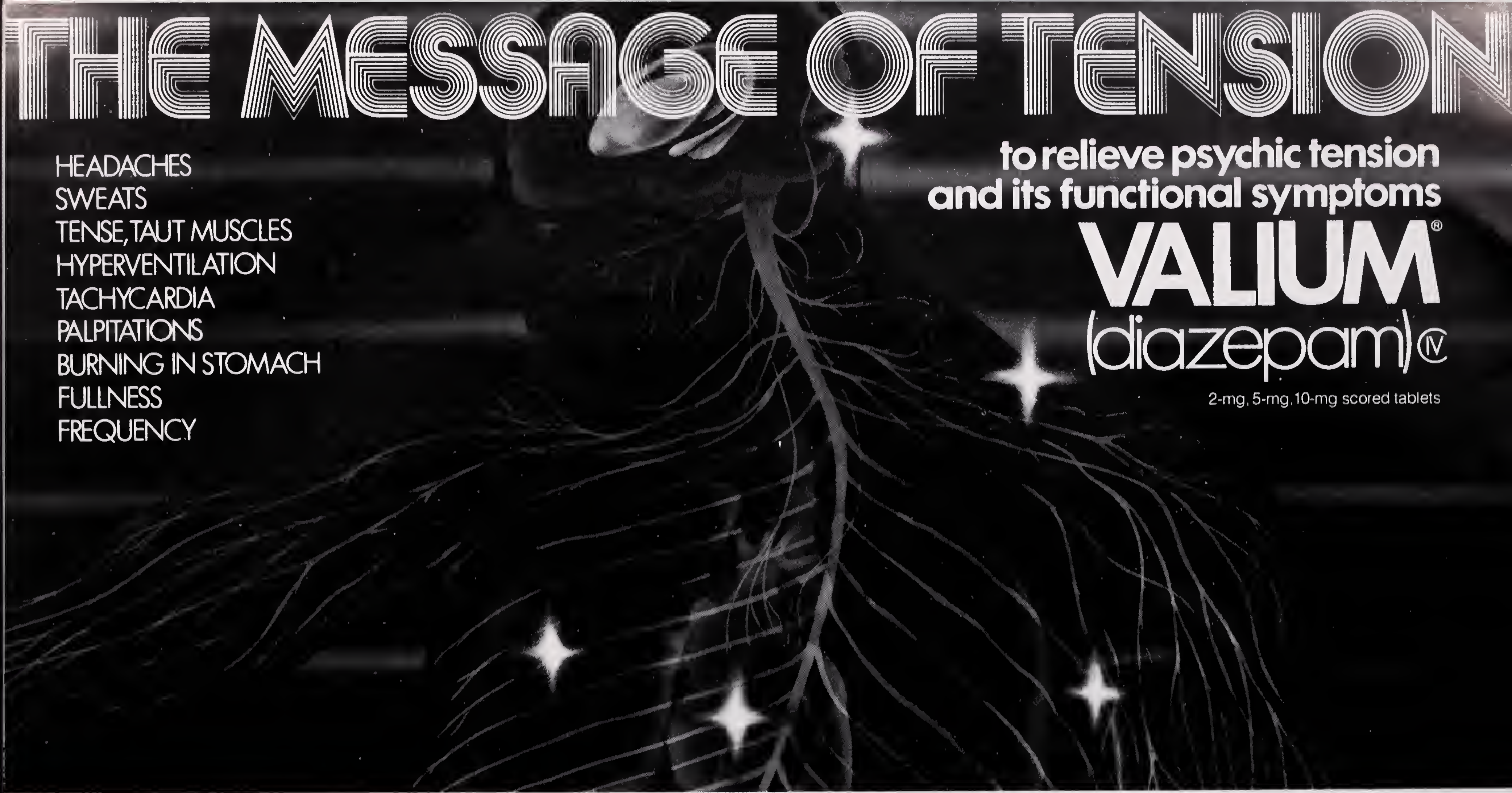

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**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

*Usage in Pregnancy:* **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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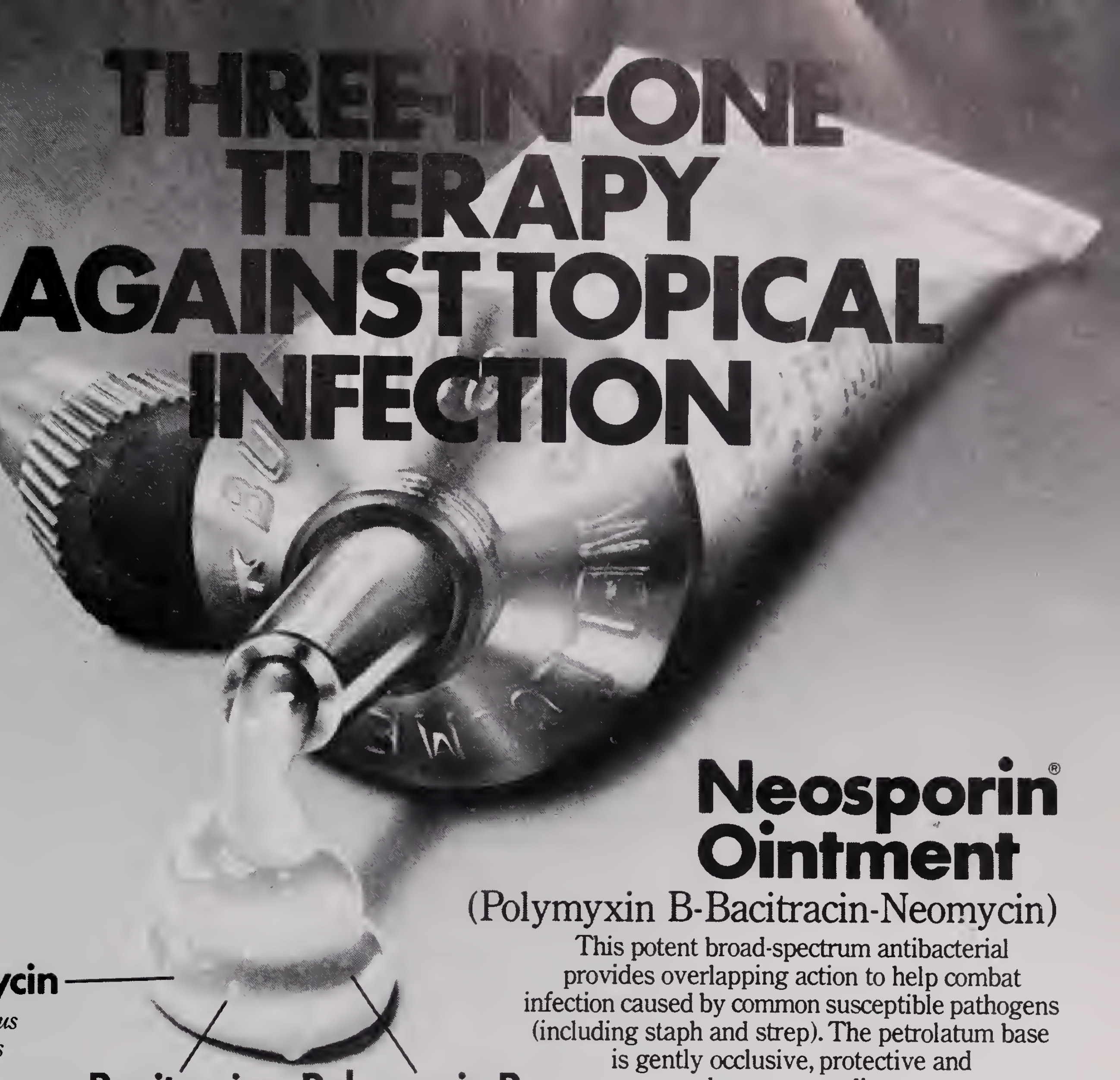

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**RNING:** Because of the potential hazard of nephro- city and ototoxicity due to neomycin, care should be rcised when using this product in treating extensive ns, trophic ulceration and other extensive conditions re absorption of neomycin is possible. In burns re more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

# Missouri Medicine

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MSMA

# NEWS ROUND - UP

December, 1978

## MSMA begins Impaired Physician Program

A statewide non-coercive program which offers rehabilitative assistance to physicians who have become impaired due to addiction to alcohol or drugs has been established by the Missouri State Medical Association.

A standing Committee on the Impaired Physician was approved at the MSMA Annual Session in 1977 with the purpose of implementing a new program to help physicians with chemical dependencies. This five-member Committee will meet to evaluate referrals and oversee the confrontation teams' work with the impaired physician.

A 24-hour telephone line has been installed at the MSMA headquarters to receive calls from the impaired physician, concerned family or colleagues. The telephone number is (314) 636-5744.

When the above number is dialed, a brief recorded message about the impaired physician program will be heard. The caller then has time to talk as long as he or she wishes.

The caller is guaranteed confidentiality. The members of the Committee on the Impaired Physician will listen to the tapes and evaluate the validity and seriousness of each call.

If help is needed, confronters will be selected to visit the physician and discuss with him or her the treatment centers and programs available to help with the problem.

At no time during the visit will there be a threat of punitive action. The purpose of this Committee and the confronters is to motivate the impaired physician to seek treatment. Addictive dependencies are treatable and have a high recovery rate.

## *MSMA TV announcements underway, medical column to start soon*

In August, 1978, the MSMA purchased the rights to three public service announcements produced by the Oklahoma State Medical Association and in September the tapes were distributed to all commercial television stations in Missouri.

The PSAs concern the following issues:

1) the importance of keeping immunizations up to date

2) proper use of hospital emergency rooms, and

3) a reminder of the importance of finding a physician before an emergency develops.

To date, there has been good cooperation from the TV stations in using the announcements. A form will be sent to the stations in a few months requesting more exact information on how often and when the announcements are shown.

In January, another part of the public relations program will get underway. A Medical Message column will be sent to all newspapers in Missouri on the 15th and the 30th of every month. The columns will deal with medical issues such as the patient-physician relationship and offer health tips on a variety of medical problems.

If these columns do not begin appearing in your local newspaper within the next few months, perhaps contacting the editor to see if he is receiving the Medical Messages would help.

## Contacts are needed for 1979 Legislative session

When the 1979 Missouri General Assembly begins its session in January, there will be 31 new members of the House of Representatives and one new member of the Senate.

The MSMA "Legislative Contact" program is also gearing up for this year's legislative session. Contacts are needed for these 32 new Legislators as well as for those already in office.

Medicine is and will continue to be tremendously affected by decisions made by politicians rather than doctors. Now is the time to become involved and one of the most effective ways is through the Legislative Contact program.

Each Legislative Contact receives a weekly Legislative Report informing him of the current status of medically-related bills before the legislature, reporting upcoming Committee hearings and asking the contact to convey medicine's viewpoint to local lawmakers.

Each Legislative Contact is responsible for informing his colleagues of crucial pending actions so physicians in all areas of Missouri can unite to exercise some control over the fate of important legislation.

Each contact also has easy access to the public — his patients. An informed physician can acquaint his patients with political issues and often enlist their support.

Continued on Next Page

*During the November, 1978 Interim Session, Drs. Edwin K. Burford, Speaker of the MSMA House of Delegates, John N. Martin, MSMA President, and Melvin C. Kasten, MSMA Delegate to the AMA, gathered before the ice decorations at the Saturday evening banquet hosted by the Cape Girardeau County Area Medical Society.*

## *One-half dues for physicians just entering practice*

Due to a Bylaws change approved during the recent Interim Session of the House of Delegates, a physician leaving a training program and entering practice for the first time is now eligible to join the MSMA and AMA for one-half dues for the first year.

Thus, members in this new category will be able to join the MSMA for $62.50 and the AMA for $125.

Dues statements for 1979 were mailed to MSMA members in November.

## Contacts needed

### Continued

The number of contacts must be limited to approximately 500 to enable the MSMA to handle the mailing of timely Legislative Reports in one day. Every effort is made to give physicians prior notice of General Assembly committee hearings so they can plan to attend, but advance announcements are difficult because committees often wait until Thursday afternoon to post notice of a meeting to be held the next Monday.

MSMA is seeking new Legislative Contacts who know Legislators socially or as patients. More physicians need to become involved if medicine's stand is to prevail this year and in future years.

Interested members are urged to clip the accompanying form and mail it soon to the MSMA headquarters, P.O. Box 1028, Jefferson City, MO 65102.

## AMPAC-supported candidates successful

Of the candidates supported by AMPAC in 1977 and 1978, 74.7 percent were successful in the 1978 elections. AMPAC supported 415 candidates, of which 210 (50.6 percent) were Democrats and 205 (49.4 percent) were Republicans. AMPAC contributed funds to 367 candidates for the House of Representatives and 48 candidates for the Senate.

## Foundation urges support of more physicians

In the November issue of News Round-Up, a list of contributions to the Missouri State Medical Foundation from the MSMA Auxiliary was published.

Although members of the Association are assessed $10 per year for the Foundation, a few individual physicians and medical groups make additional contributions. Those who have made donations thus far in 1978 are shown below.

| | |
|---|---|
| Max S. Franklin, M.D. | $250.00 |
| Albert D. Cross, M.D. | 34.50 |
| Paul R. Whitener, M.D. | 100.00 |
| Leonard T. Furlow, M.D. | 100.00 |
| John I. Matthews, M.D. | 115.00 |
| Mary E. S. Case, M.D. | 50.00 |
| Boonville Medical Group | 100.00 |
| Hirsch Rexall Pharmacy | 50.00 |
| Foster's Drug Store | 75.00 |
| Long's Drug Shop | 60.00 |
| Miller's Medical Arts Pharmacy | 100.00 |

But despite these generous donations and assessments, more money is needed so additional students can attend medical schools and become the Missouri physicians of the future. The number of applications for loans far exceeds the funds available.

The Foundation Board also urges physicians to remember the Foundation in bequests. If patients ask about worthwhile groups for donations, the education of physicians is perhaps the best way to advance and improve the medical care of everyone.

And remember, donations to the Foundation are tax deductible.

## LEGISLATIVE CONTACT

**I would like to participate in the "Legislative Contact" Program.**

Please send me additional information.

Name ______________________________

Address ______________________________

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**Mail to:**
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*__Indications:__ Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.

Final classification of the less-than-effective indications requires further investigation.

**Composition:** Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.
Vasodilan injection, isoxsuprine HCl, 5 mg., per ml.

**Dosage and Administration:** Oral· 10 to 20 mg., three or four times daily.
Intramuscular. 5 to 10 mg.(1 or 2 ml.) two or three times daily. Intramuscular administration may be used initially in severe or acute conditions.

**Contraindications and Cautions:** There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Parenteral administration is not recommended in the presence of hypotension or tachycardia

Intravenous administration should not be given because of increased likelihood of side effects.

**Adverse Reactions:** On rare occasions oral administration of the drug has been associated in time with the occurrence of hypotension, tachycardia, nausea, vomiting, dizziness, abdominal distress, and severe rash. If rash appears the drug should be discontinued.

Although available evidence suggests a temporal association of these reactions with isoxsuprine, a causal relationship can be neither confirmed nor refuted.

Administration of single dose of 10 mg intramuscularly may result in hypotension and tachycardia. These symptoms are more pronounced in higher doses. For these reasons single intramuscular doses exceeding 10 mg. are not recommended. Repeated administration of 5 to 10 mg. intramuscularly at suitable intervals may be employed.

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# in Brief

## A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

**THE VOLUNTARY EFFORT** program, designed last year by the American Hospital Association, the AMA and the Federation of American Hospitals to reduce the rate of increase in hospital expenditures by 2% a year for the next two years, will be evaluated as part of a major health care cost containment study. The study is being conducted by Northwestern University and is funded by a $2 million grant from HEW's Health Care Financing Administration. The project will run for five years.

**VOTERS IN NORTH DAKOTA** defeated a proposal that would have put health care costs under state control. The plan, which originated with the state insurance commissioner, would have made the state health officer responsible for holding hearings to set maximum rates for all health services. The voters rejected the measure by a margin of more than three to one.

**A CURRICULUM** developed by the AMA on health education skills for jail personnel will be distributed by the National Institute of Corrections to jails across the country. The curriculum is the outgrowth of a training program to help jail personnel recognize medical problems among inmates.

**A STATE** is not required to recognize naturopathy as a discipline distinct from the licensed practice of medicine, the Fourth Circuit Court of Appeals has ruled. The ruling came on suits filed by the Idaho Naturopathic Association against HEW and the states of South Carolina, North Carolina, Maryland and Wyoming.

**A MEDICAL EXPLORER** or explorer post will be recognized with an award at the AMA's 1979 Annual Meeting. The award will be presented by the AMA in cooperation with the National Association of Medical Exploring and the Exploring Division of the Boy Scouts of America. It will be based on significant contributions to the community, state or nation in the field of medicine, medical research or citizenship projects related to health.

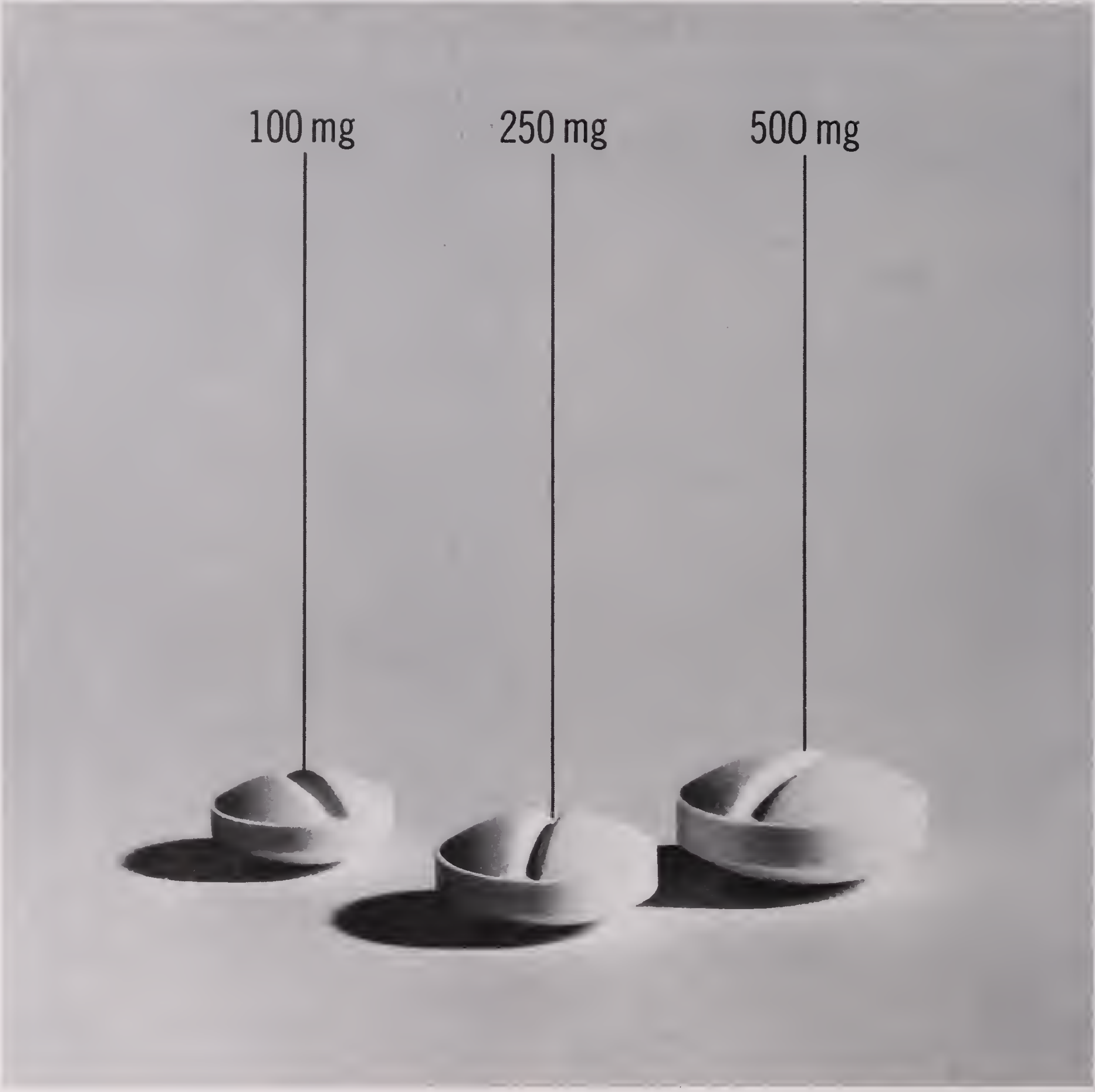
**EXPERTS ON SKIN** health will discuss problems resulting from contact with environmental substances at the AMA's 4th National Conference on Cutaneous Toxicity on May 9-11. The meeting will be at the Mayflower Hotel, Washington, D. C.

**A HEALTH CARE** cost containment campaign was unveiled by the U. S. Chamber of Commerce. The program, "A National Health Care Strategy," will show business and industry how to take action to curb their health care costs and improve the health care system. The program is based on a study conducted for the National Chamber Foundation by InterStudy, a Minneapolis health care consulting firm.

**THE AMA'S UNIFORM** health insurance claim form is becoming the predominant claim form throughout the health insurance industry. Introduced in 1974, the form was designed for use in both the private health insurance industry and in government programs. The Health Insurance Association of America says each of its approximately 300 member companies will accept the form when submitted by a physician's office. The Blue Shield Association says 24% of their 70 member plans have adopted it as their primary claim document. The Health Care Financing Administration is studying the feasibility of using the AMA form as the common claim document for Medicare and Medicaid.

**AN AMA SURVEY** of state medical disciplinary boards has found that disciplinary actions against physicians increased six-fold between 1971 and 1977. In 1971, there were 119 actions brought against physicians. In 1977, there were 685. Much of the increase can be attributed to the rising number of states providing immunity from civil liability for persons making reports to state disciplinary boards, an AMA spokesman said.

**THE AMA EDUCATION** and Research Foundation continues to provide financial support to needy students and physicians in training. During the first nine months of this year, the AMA-ERF guaranteed more than $4 million in new loans.



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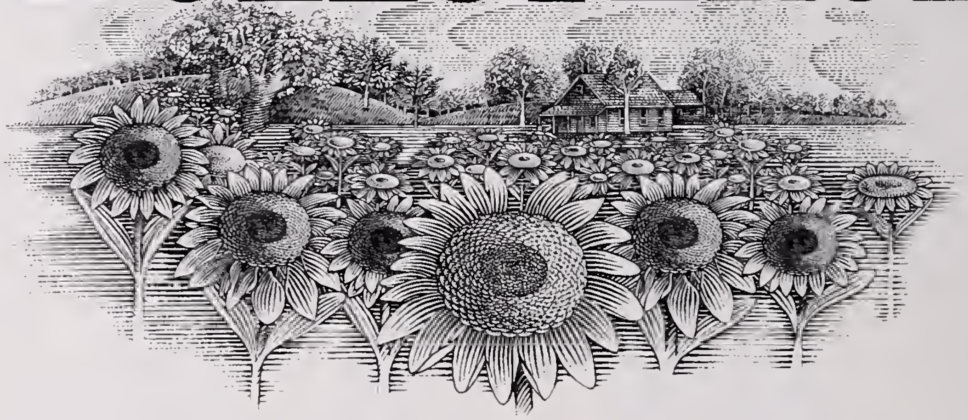

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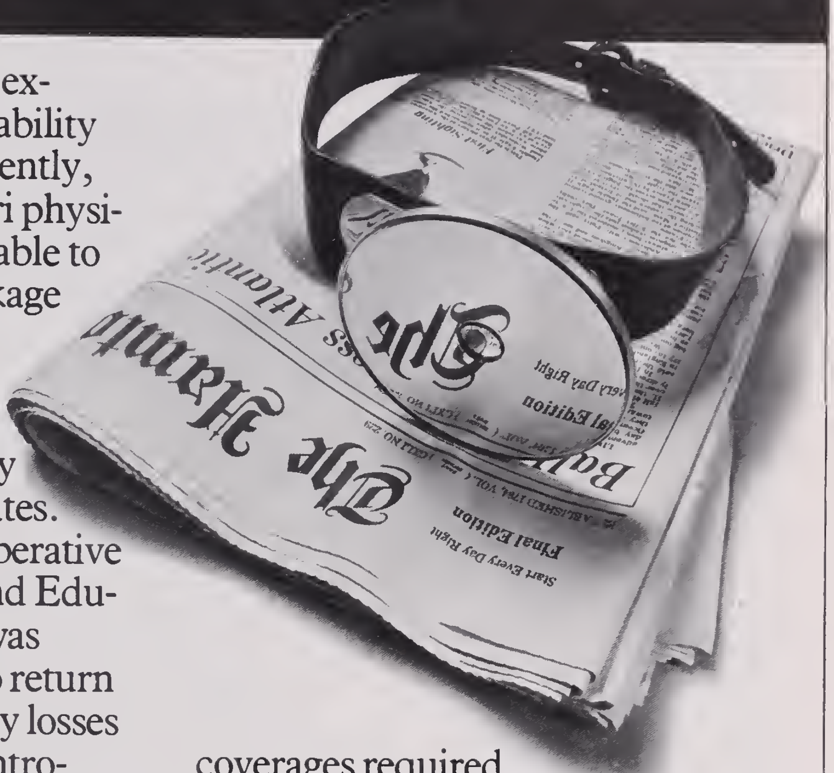

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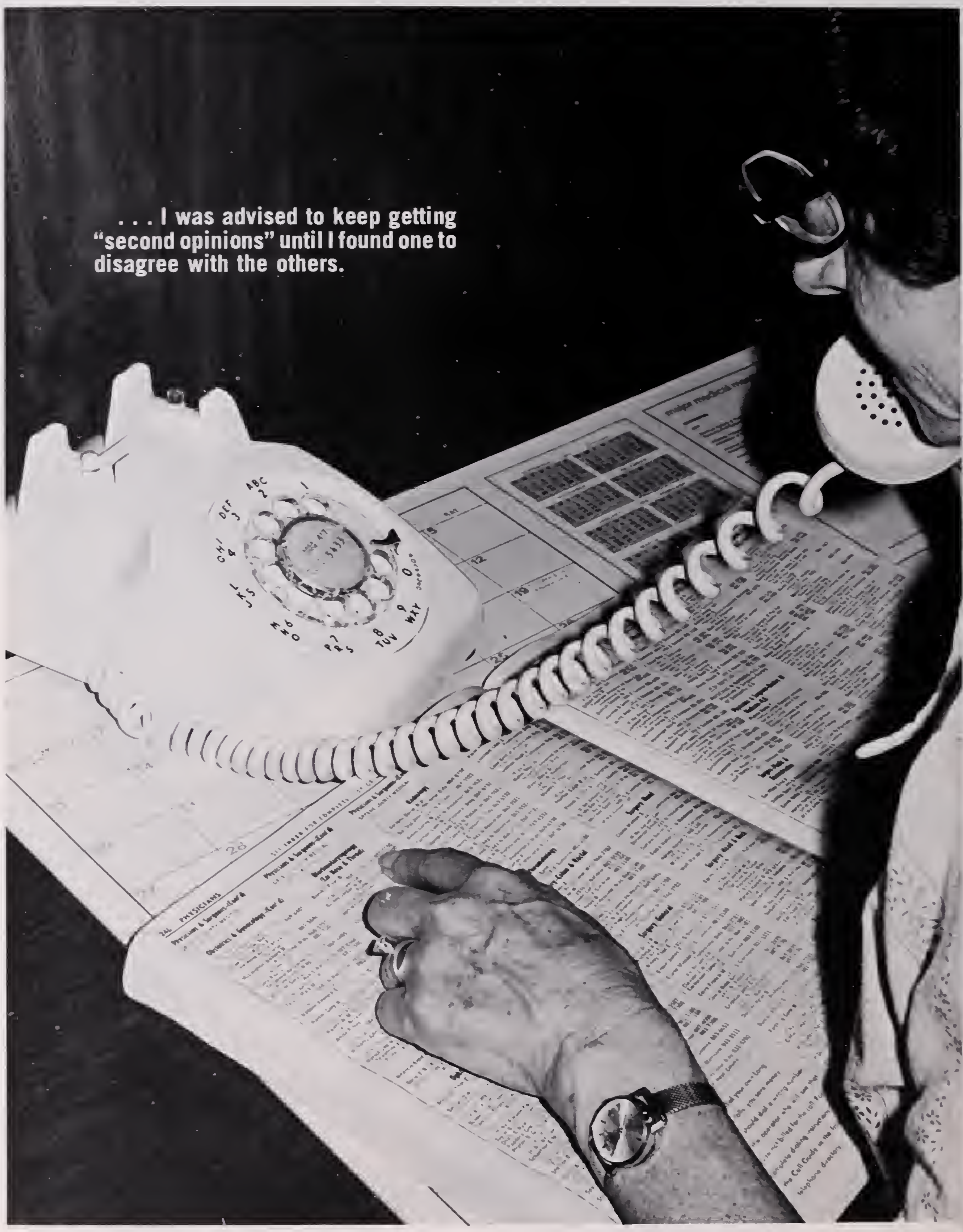
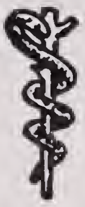
Photo-Comment by James W. Clawson, M.D., Springfield



. . . I was advised to keep getting "second opinions" until I found one to disagree with the others.

# Editor's Corner



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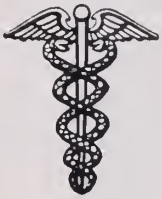


## 'TIS THE SEASON

To be jolly, I suppose a novel, though not inappropriate, Christmas present to my colleagues would be to acquaint them with the proper symbol of medicine. This is much misunderstood.

I must confess that what follows is not original with me. My friend, Dr. Tullos O. Coston, Emeritus Professor of Ophthalmology at the University of Oklahoma, has devoted much time to this matter. He called it to my attention, but it has seemed to die on the vine since his last publication in 1970.

Like the great majority of you, I always considered the winged staff, entwined by a pair of serpents, to properly represent the medical profession. We are dead wrong, notwithstanding the fact that I and my WW II Army Medical Corps insignia went half way around the world misrepresenting the whole business.

But, to get down to basics, let me relate it is only in America that the winged staff with two entwined serpents is thought to represent medicine at all. Mexico, France, Great Britain and everyone else seems quite clear about it so let's straighten this out.

All of you would agree that Asclepius (Greek) or Aesculapius (Roman) is the God of Healing. But, with either god, an accompanying snake was thought to be associated with healing wisdom, longevity and immortality. Dr. Coston assures me that a staff with one snake wrapped about it symbolized the ability to change from a lethargic state to one of activity and, thus, became a symbol of life-giving power of the physician. The American Medical Association adopted this staff as its symbol in 1910. It has so remained.

The winged staff with *two* entwined snakes is entirely another matter. This is the staff of Hermes (Greek) or Mercury (Roman). This symbol is known as the caduceus. Neither Hermes, Mercury or the caduceus in any way represent the healing art. In fact, Hermes conducted the souls of the dead to hell. Mythology (and Dr. Coston) tells us that Hermes one day discovered two snakes copulating. With his staff, he separated them, thus thwarted nature with evil intent and this pornographic symbol was born. Dr. Fielding H. Garrison, the eminent medical historian, has given some thought to this and could never explain why the United States Army adopted the caduceus as an insignia for its Medical Corps when the Medical Department of the United States Army had already adopted the Aesculapian staff for itself in 1818. However, with the screwed up track record of the United States Army, this should not be difficult to understand.

Reflecting on this bit of memorabilia, I recall the day when I opened my first office, July 5, 1949. My pride was a handsome $30 inlaid linoleum floor plaque of the staff of Mercury just inside the door. And, just to show how agonizingly slow progress comes about, I would invite you to our present office. There, on the door just above our name, is a pleasant formica plaque — again, the staff of Mercury. Pornography personified!

And so, a Merry and Informative Christmas to you all. And to you, Dr. Coston, our thanks.

Wilfred E. Wooldridge, M.D.

*Special Article*

# The History of Radium

By
LARRY L. DOSS, M.D.
Columbia

IN 1896, one year after the discovery of x-rays by Roentgen, a French physicist named Henri Becquerel reported to the French Academy of Science his observation that uranium was spontaneously and continuously emitting radiation that could penetrate matter.[1] These salts of uranium emitted rays of a previously unknown nature and could blacken photographic paper in its protective cover and discharge an electroscope by rendering the surrounding air an electrical conductor.[2] That a natural element could produce radiation similar to that of Roentgen's vacuum tubes excited the curiosity of many scientists, including Marie Curie.

In 1897, Marie Curie was a physics student seeking a subject for original research. After reviewing the physics publications of the previous year, she was attracted to Becquerel's findings and decided to make the nature of uranium rays the subject of her doctoral thesis.[3] So begins the story of radium and, in parallel, the story of Marie Curie.

Marie Curie was born Marie Sklodowska, the third daughter of Prof. Vladislar Sklodowska, a professor of physics at a boys' high school in Warsaw, Poland. As a child, she demonstrated an aptitude for mathematics, but when she was unable to continue her studies as a teenager, she worked as a governess. Her earnings helped to send her older sister, Bronya, to medical school in Paris for three years. In 1891, Marie joined her sister at the Sorbonne and studied physics. While there, she met Pierre Curie, the young and highly respected physicist she would marry in 1895.

Soon after starting work on uranium salts, Marie Curie became aware that it was their atomic properties which were responsible for the weak radioactivity she observed.[1] She then searched for radioactivity in other chemical salts and found that thorium emitted spontaneous rays similar to those of uranium and of like intensity. With an electrometer, she proceeded to test for "radiance" the entire mineral collection of the Department of Physics. When she examined the pitchblende ore, something unusual occurred. She found more radioactivity than could be accounted for by the chemical composition of the ore when compared with both its uranium and thorium contents. This excess radiation suggested a much more powerful radioactive substance than either thorium or uranium.

Knowing from her previous experiments that she had examined all known chemical elements, the existence of a new element was the only suitable explanation. This theory was published by Marie Curie on April 12, 1898.[2] To prove the new element's existence, the Curies set out to extract it from pitchblende where it existed in a concentration of one part per million. In July of 1898, after prodigious labor, they were able to deter-

**The renewed interest in low-dose rate interstitial radiotherapy has prompted many reviews of the principles gained in 50 years' experience with radium and radon. To understand how low intensity radioisotope therapy developed its present status of equipment and methods for radiotherapy, one must trace its evolution from the Curies' first accidental skin "burns" to present day computer-assisted dosimetric systems. This report was first presented at the Medical Physics Seminar of Oct. 6, 1977, sponsored by the Ellis Fischel State Cancer Hospital (EFSCH).**

**Dr. Doss is Associate Director, Department of Radiation Therapy, EFSCH and Cancer Research Center. This investigation was supported in part by Clinical Cancer Education Program Grant CA 17946 from the National Cancer Institute, Department of Health, Education and Welfare.**

mine that the radioactivity was concentrated in two different chemical fractions of the ore. The first was named "Polonium" in honor of Marie's homeland and the second, "Radium." Enough of the radium-containing fraction was isolated to allow the Curies to determine the characteristics of this new element. These findings were published in the "Proceedings" session of Dec. 26, 1898.[3]

The scientific community, however, reacted with skepticism. No one could explain the spontaneous radiation from these new elements, and their special properties upset current and fundamental physical theories. Contemporary chemists were impatient to see, weigh and experiment with radium.[1] One was quoted, "No atomic weight, *NO* radium. Show us some radium." It would take four years of processing ore in a crude shed before the Curies would begin to distribute the precious radium to the world's scientists.

During the time the element was being extracted, the Curies published three reports on the effects of its radioactivity and on the electric charges carried by the rays. They observed that three types of radiation were released by radium (Fig. 1). Together with Lord Rutherford of England, they were able to discern "alpha" and "beta" rays.[2] Alpha rays were nonpenetrating, i.e., they could be stopped by a sheet of paper, and they were only slightly deviated by a magnet. The beta rays were more penetrating, requiring several sheets of thin metal to be stopped. They also were susceptible to magnetic deviation. With the aid of the physicist, Paul Villard, the Curies were able to detect the most highly penetrating rays, the "gamma" rays.[4] The gamma rays were not deviated at all by magnetic forces, which distinguished them from the particulate alpha and beta rays. These findings, which aroused immense interest among Europe's scientists, were summarized in a general report delivered to the 1900 Congress of Physics.[2]

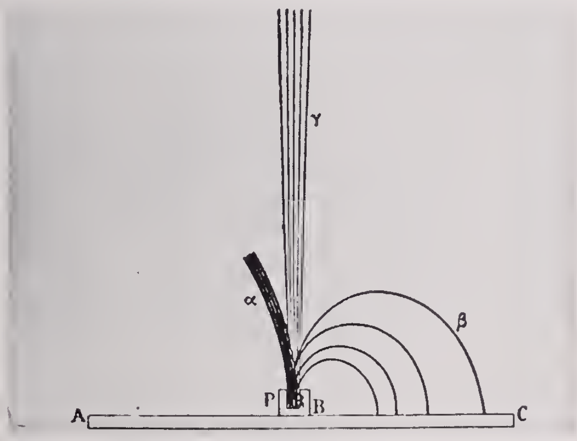


**Fig. 1** **This diagram, attributed to the Curies, demonstrates the three types of radiation released by radium and the influence of an electromagnet (A — negative pole, C — positive pole) on the "rays." Alpha ($\alpha$) rays were only slightly deviated towards the negative pole, whereas beta ($\beta$) rays were extremely susceptible and bent towards the positive pole. The non-particulate gamma ($\gamma$) rays were not at all affected by magnetic forces. (From Homans, John, *A Textbook of Surgery*. 6th Ed., 1945, Courtesy of Charles C Thomas, Publisher, Springfield, Ill.)**

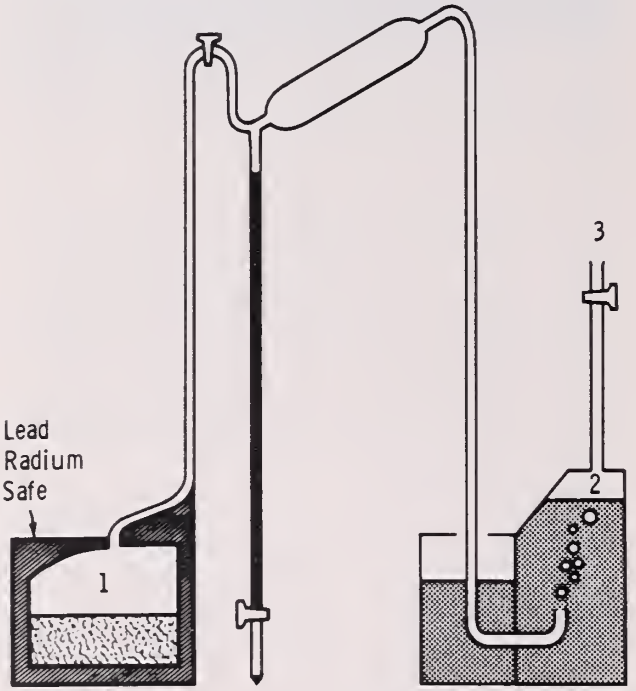
**Fig. 2** **Madame Curie in her laboratory, circa 1920. (From Reid, R.: *Marie Curie*. 1975. Courtesy of New American Library, New York.)**

In 1902, 45 months after announcing the probable existence of radium, Marie Curie had succeeded in preparing a decigram of pure radium chloride (Fig. 2).[3] She made the first determination of the atomic weight of the new substance, and radium officially existed. The Curies freely gave the necessary technical details on the extraction of radium to all who sought it, and soon the evidence began to pour in from other investigators.

Radium was powerful beyond expectation; the purified chloride was two million times stronger than uranium in its radioactive intensity. Radium spontaneously gave off heat and light, defying the theories of fundamental physics. In one hour, it could produce enough heat to melt its own weight in ice, and it always remained 10C. above the surrounding atmosphere. Radium's gamma rays made impressions on photographic plates covered with black paper and ionized the atmosphere rendering it an electrical conductor.

Marie Curie postulated in 1900 that the radioelements were in a state of spontaneous evolution. The more rapid the rate of transformation, she wrote, the more powerful the "activity" of the radioelement.[1] Her predictions proved true in 1903 when two English scientists, Ramsay and Soddy, demonstrated that radium was continually releasing helium gas.[2] This was the first known example of a transformation of atoms. Radium gave off the gas, radon, as well.[3] Radon was named "emanation" by the Curies and was found to emit the same radiation as radium. When drawn off and isolated, radon was found to destroy itself by one half every four days. Thus, radon became the model for radioactive decay and the concept of "half-life."[5]

Ominously, Marie Curie commented on the "contagious" nature of radium.[1] Objects, persons, plants and minerals exposed to radium would develop "activities" of their own which would interfere with the precise measurements she was attempting. To quote from her notebook: "When one studies strongly radioactive substances, special precautions must be taken if one wishes to be able to continue taking delicate measurements. The various objects used in a chemical laboratory, and those which serve for experiments in physics, all become radioactive in a short time and act upon photographic plates through black paper. Dust, the air of the room, and one's clothes, all become radioactive."[1]



redrawn from C.W. Allen

Fig. 3 Early Radon Extractor. (1) A solution of radium bromide or chloride containing at least .5 gm of radium element evolved the heavy gas radon. It was then pumped off and collected in Chamber 2. (3) Following the collection of a suitable volume, the radon was concentrated by exposure of liquid air and the compressed gas fed into fine capillary tubing surrounded by pure gold. In this fashion, filtered gold "seeds" were produced.

To this day, the working notebooks of the Curies continue to emit radioactivity.[1, 2]

The Curies were indifferent about the physiologic effects of radium until they began carrying small samples of the element to their colleagues. The skin underlying Pierre's pocket developed a lesion which took 52 days to heal.[1] He wrote: "I may add that Marie Curie, in carrying a few centigrams of very active matter in a little sealed tube, received analogous burns, even though the little tube was enclosed in a thin metallic box. One action lasting less than half an hour, in particular, produced a red spot at the end of 15 days, which left a blister similar to that of a superficial burn and took 15 more days to cure." Henri Becquerel, carrying a glass tube of radium lent to him by the Curies, also was burned.[2] Astonished and angry over his participation in this involuntary experiment, he hurried to them and related the incident.[1] Becquerel described his skin reaction in detail, along with Pierre's similar observations, in the Proceedings of the Academy of Science of June 3, 1901. Soon after the biological effects of radium were published, there was a virtual cascade of treatments of skin cancers with radium and radon.[5]

Radium and radon therapies were "born" in Paris at the turn of the century. In 1901 at Hôpital St. Louis, Danlos and Block used radon tubes to successfully treat both skin cancer and lupus.[4, 5] The radon gas was enclosed in glass tubes and applied directly to the lesion. Radon had exactly the same biological effects as radium and could be pumped off and collected from the radium safe (see Fig. 3). It was necessary to keep radium in a safe, not only because of its value ($120,000 per gram), but also to shield personnel from its radioactivity.[5]

In the autumn of 1902, the Gussenbauer Clinic of Vienna reported the complete regression of a massive pharyngeal carcinoma in a 61-year-old man treated with a radium plaque.[4] Eight months later, when no recurrence was evident, the case was presented before the medical section of the Royal Imperial Academy of Science. Similar enthusiastic reports from other European clinics appeared shortly afterwards.[6] Radium-induced regressions were seen in epithelioma of the lip, psoriasis, rodent ulcer, furunculosis and lupus vulgaris.[4] Despite the multitude of optimistic reports, H. Plimmer of the Lister Institute of Preventive Medicine soberly described his results in treating 16 cancer cases with radon applicators. His conclusions are worth quoting: "It appears as if the emanation from radium can act only upon young and rapidly growing cells, and that older cells, especially if surrounded by fibrous tissue, are less and less easily affected, and if there be an excess of fibrous tissue, the cells are not at all affected."[4]

Dr. Robert Abbe (Fig. 4), chief surgeon at St. Luke's Hospital in New York, had encountered similar difficulties in attempting to treat a "giant cell sarcoma" of the mandible.[7] He first applied a glass tube containing "15 grains of French radium" directly on the mucosal surface of the lesion. Although the mass regressed in size, mucosal reaction forced interruption of the daily treatments.[7, 8] As reported to the Practitioner's Society of New York on March 4, 1904, Abbe abandoned this method in favor of another:

"Anesthesizing the mucous membrane with a drop of cocaine, I pressed a bistoury through the rim of the tumor and found the soft sarcomatous mass allowed the radium glass tube to be pressed through it down to the lower margin of the jaws, represented by the shell of bone. Two or three times weekly, I have thus penetrated the various parts of the tumor, leaving the radium imbedded for two to three hours at a time." Nine years later, the patient was still well and without tumor recurrence.[9] Thus, Abbe became the first to perform an intratumoral (interstitial) radium implant.[4, 10]

The idea for such an approach, however, is attributed to Alexander Graham Bell.[10, 11] The following account was taken from page 261 of *American Medicine*, dated August 15, 1903:

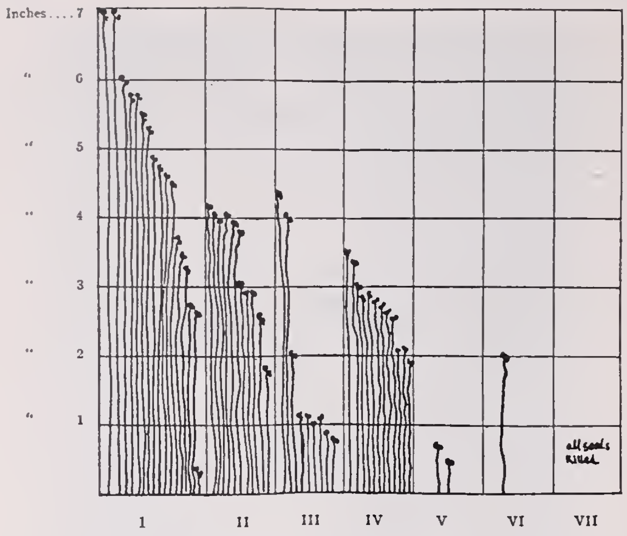
". . . the Roentgen rays, and the rays emitted by radium have been found to have a marked curative effect upon external cancers, but . . . the effects upon deep-seated cancers have thus far proved unsatisfactory.

"It has occurred to me that one reason for the unsatisfactory nature of these latter experiments arises from the fact that the rays have been applied externally, thus having to pass through healthy tissue of various depths in order to reach the cancerous matter.

"The Crooke's tube, from which the Roentgen rays are emitted, is, of course, too bulky to be admitted into the middle of a mass of cancer, but there is no reason why a tiny fragment of radium sealed up in a fine glass tube should not be inserted into the very heart of the cancer, thus acting directly upon the diseased material. Would it not be worthwhile making experiments along this line?"[2, 9]

If interstitial radium therapy was pioneered by Abbe, then the field of radiobiology was also, for he was one of the first to try to quantify radiation response in biological systems.[2] He performed experiments on his own skin, varying the exposure to radium and correlating it to the degree of erythema and necrosis produced.[8, 12] His work with seedlings (see Fig. 5) pointed out the potential dangers of radium effects on germinative tissues.[7, 8] This aspect of his work was to be largely ignored, while the advantages of interstitial and

**Fig. 4 Dr. Robert Abbe, chief surgeon at St. Luke's Hospital (New York), was a pioneer in the field of radiobiology. He was the first to perform an intratumoral (interstitial) radium implant. (From Homans, John, *A Textbook of Surgery*. 6th Ed., 1945. Courtesy of Charles C Thomas, Publisher, Springfield, Ill.)**



Diagrammatic representation of seed growth following exposure to radium rays; twenty seeds in each exposure; I, without exposure, 17 seeds grew; II exposure for 2 days, 11 grew; III, 3 days, 9 grew; IV, 4 days, 12 grew; V, 5 days, 2 grew; VI, 6 days, 1 grew; VII, 10 days, none grew.

**Fig. 5 Early radiobiologist, Robert Abbe, published this graph showing quantification of time-dose factors to radium irradiation of germinative tissues (seedlings) in 1904. (Redrawn from Abbe, R.: Report of the Practitioner's Society of New York. Med. Rec., 1904.)**

intracavitary applications of radium were recognized from the very beginning.[2]

The rapid fall-off in dosage intensity from radium was an asset in the bulky gynecologic applicators of that period. However, large containers were not advantageous for direct tumor implantation, and it was Stevenson and Joly of Dublin, Ireland who devised a method of collecting radon in very fine glass capillary tubes.[13] The tubes, in turn, were threaded into hollow metal needles which could be inserted into tumors.[14]

In 1907, Henri Dominici was able to define the principles of radium filtration by the use of heavy metals, e.g., irido-platinum alloy, in the construction of radium needles.[15] Such needles would only emit the gamma rays of radium, and surrounding tissues would be spared the necrosing effects of beta rays. His work was not well received in America where steel needles continued in use until the 1920s.[16] These were adequate for cervical carcinoma, but severe ulceration often followed their use in the oral cavity.[2, 5]

In 1915, Professor Duane of Harvard suggested that radon be used in small bits of capillary glass tubing and be considered as multiple point sources of embedded radiation.[2] These became known as radon "seeds" and were used extensively at the Memorial Hospital in New York.[17, 18] It was Duane's idea that it was the beta irradiation from radon seeds that conferred therapeutic effect.[2] Dr. Henry Janeway, surgeon and director of most of the early radon seed work at Memorial Hospital, disagreed.[17-19] He had noticed an intense necrosis around each seed he implanted and, although he had obtained good tumor regression with the seeds, the regions of necrosis were painful for a considerable time and could serve as a nidus for infection.[14, 18] Janeway correctly theorized that the beta rays were responsible and asked his physicist, Gioacchina Failla, to develop a filtered seed.

Failla tried various schemes, including leaded glass, before he had the idea of using pure gold capillary tubing which was very soft and self-sealing when cut.[20] Failla's gold seeds were quickly adopted and are still a part of the modern radiotherapeutic armamentarium (Fig. 6).

Meanwhile, at the Institut De Radium-Pavilion Curie in Paris, interstitial therapy had progressed under the guidance of Dr. Claude Regaud. By 1920, Regaud had elaborated the basic principles of radium therapy and prepared the first practical low intensity platinum needles.[21] He felt that "radium therapy should employ ultrapenetrating gamma rays filtered by heavy metals as recommended by Dominici" and that "generally, the treatment is most effective if continuous and extended over six to ten days."[21] Regaud was the first to advocate the loading of 0.66 to 1.0 mgm of radium per centimeter of active length as used today.[4] The advantages of this low intensity sys-

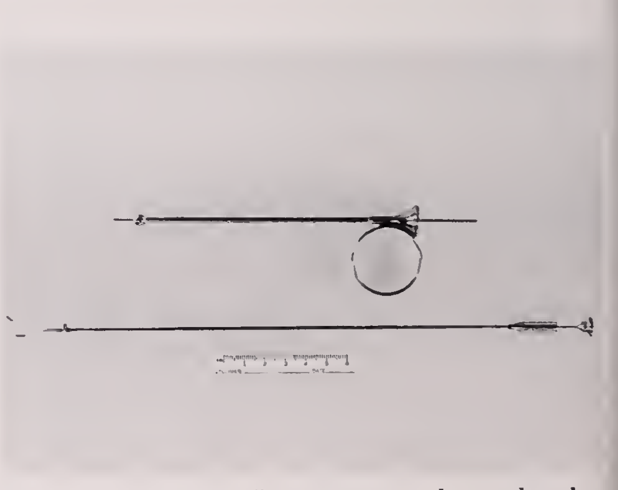


**Fig. 6 Gold "seeds" containing radon and stylus-applicator, similar to the ones produced by the physicist, G. Failla, at Memorial Hospital (New York). Filtration of radon by gold reduced the intensity of necrosis-causing beta rays.**

tem were described by Lenz in a paper presented before the American Radium Society in 1925.[22] The result was a change in attitudes of American therapists so that they favored radium needling of intraoral lesions.[4, 16]

In 1930, similar needles were prepared for use in the United States by the Radium Chemical Company. It immediately became apparent that reactions were much milder and the healing process more normal than with the older high intensity steel needles.[2]

The "golden age" of radium therapy came with the ability to make dosage calculations and accurate reproductions of dose. Earlier, an attempt was made to express radium potency relative to uranium standards, but no actual dosage unit was adopted.[1] Treatment methods were developed empirically and amended by trial and error.[5] Calibrations using the ionization chambers of the time yielded discordant results due to the more energetic secondary rays emitted by a radium source. At the University of Berlin, Friedrich finally achieved unequivocal results using an armory (100 m x 50 m x 22 m in size) as his "ionization chamber."[2] Practical dosage systems were provided to the clinician by Paterson and Parker of England in 1938 and by Edith Quimby of the United States in 1944.[23, 24] Today, it is well accepted that a point source of 1 mg of radium, filtered by 0.5 mm of platinum, delivers 8.25 R per hour at a distance of 1 cm.[25, 26]

In the 79 years since Marie Curie announced the existence of radium, thousands of years have been added to the lives of countless numbers of patients by the application of radium's "subtle powers" in the battle against neoplasia (Fig. 7). Whatever the future holds in store by way of cancer therapies, the discovery of radium therapy undoubtedly will remain one of the greatest victories of mankind in its battle against cancer.

PRÓBA
Ra
MARIA SKŁODOWSKA CURIE

**Fig. 7 Marie Curie has been honored three times on commemorative coins by her native Poland. The latest (1974) is on the obverse of a 100 Zlytych silver coin and shows her profile superimposed on a diagram of rays radiating from the atomic symbol Ra. (Photograph courtesy of A. Czopko, Advisor to the President, Narodowy Bank Polski.)**

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| | II | Minor Surgery | 983 | 563 | 768 | 432 |
| | IIID | Urologist, Opthalmology, Proctologist | 3,744 | 2.304 | 2.880 | 1,728 |
| | IVB | General Surgeon | 4,880 | 3,080 | 3,840 | 2,400 |
| | IVA | Otolaryngologists, OBGYN, Plastic | 6,243 | 3,795 | 4,896 | 2.938 |
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| | IVH | Anesthesiologists | 8,434 | 5,074 | 6,624 | 3,936 |

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| | II | Minor Surgery | 819 | 469 | 640 | 360 |
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| | IVC | General Surgery | 4,067 | 2,567 | 3,200 | 2,000 |
| | IVD | Otolaryngologist, OBGYN, Plastic | 5,202 | 3,162 | 4,080 | 2,448 |
| | IVE | Thoracic, Neuro, Orthopedists | 6,630 | 4,030 | 5,200 | 3,120 |
| | IVF | Anesthesiologists | 7,028 | 4,228 | 5,520 | 3,280 |

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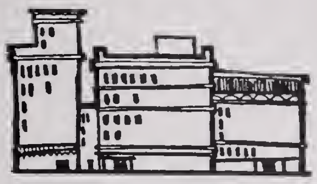


# NEWS

# From the Medical Schools

## UNIVERSITY OF MISSOURI-COLUMBIA

*Dr. Joseph M. White* has accepted a position as president of the University of Health Sciences/ The Chicago Medical School. The private university is building a $100 million campus adjacent to the Veterans Administration Hospital in North Chicago. The school provides training for allied health professionals, physicians and teachers.

In November, Chancellor Barbara Uehling announced plans for reorganizing the administrative structure of the Columbia campus, which eliminate the post Dr. White has held as provost for health affairs the past five years. He will begin his new job in January, 1979.

Dr. White has gained national prestige in medical education. He is chairman-elect of the Coordinating Council on Medical Education and former chairman of the Liaison Committee on Medical Education, which accredits the nation's medical schools.

At their November meeting, the Board of Curators approved a Bachelor of Science degree in the Health Sciences which will be awarded to graduates in five programs administered by the School of Health Related Professions. They are physical therapy, occupational therapy, respiratory therapy, medical technology and radiologic technology. Heretofore, the graduates received degrees through the College of Education.

The School of Health Related Professions on the Columbia campus consolidates the five allied health bachelor degree programs and the health services management program at the master's level. The School of Medicine administers the new division. *Dr. Herbert S. Goldberg* will serve as director as part of his duties as associate dean of the medical school. Three hundred and sixteen students were enrolled in the pre-professional program (first two years of college) and 243 in the professional program (clinical training in the Medical Center) during the last school year.

Approximately 200 alumni, including 12 members of the Class of 1928, returned from 18 states (and Missouri) for the 19th annual M.D. Day program this fall. Since the four-year School of Medicine was established with the opening of the University Medical Center in 1956, there have been 1,644 medical graduates. Ties also remain strong with many graduates of the previous two-year school.

*Prof. James T. Barrett* was invited to attend an international symposium on Legionnaire's Disease in Atlanta, Ga. on November 13-15. Sponsored by the NIH, the Center for Disease Control and World Health Organization, the purpose of the meeting was to present the latest information on the disease and to stimulate research on the organism causing it. Microbiologist Barrett also participated in the Midwest Autumn Immunology Conference in Dearborn, Mich.

*Dr. Habeeb Rahman*, second-year resident, and *Dr. Wesley McEldoon*, third-year resident in the Department of Psychiatry, received citations for outstanding work preceding the first annual Kenneth F. Struessel Memorial Lecture recently. Each received an award of $200 from the department's MPIP fund.

## UNIVERSITY OF MISSOURI-KANSAS CITY

A new ceremony was held at the School of Medicine on October 29 when the new Year I students and their parents joined the faculty and staff at a Convocation to welcome them to the School. They heard a formal reading of the Physician's Oath which they will recite at their graduation six years hence.

Participating in the Convocation were the *Hon. Thomas F. Eagleton*, U. S. Senator from Missouri; *Dr. George A. Russell*, chancellor of the University of Missouri-Kansas City; *Dr. E. Grey Dimond*, provost for health affairs and distinguished professor; *Dr. Harry S. Jonas*, dean; and former dean *Richardson K. Noback*, senior docent and professor of medicine.

Dean Jonas presented the former dean with the traditional faculty chair and expressed appreciation for his years of dedicated service. He also spoke to the students about their future responsibilities and the philosophy of the school.

Senator Eagleton spoke on the future of health care in the United States.

Six members of the faculty were chosen to present papers or participate as panel members in symposia at the Annual Meeting of the Association of American Medical Colleges during the week of October 22.

*Dr. Lee Langley*, associate dean, and *Dr. Noback*, senior docent and professor of medicine, presented the keynote speeches on "The Implication of the Horowitz Decision at the Graduate Medical Education Session." *Dr. Jack Mulligan*, docent, participated in a symposium on cost containment by reviewing the UMKC teaching program in "Quality Assurance and Cost Containment."

*Dr. Louise Arnold*, assistant professor in medicine and sociology and coordinator for research in medical education, organized the symposium on "Alternative Programs in Medical Education: How Well Are They Working as Measured by Student Performance." *Mr. T. Lee Willoughby* presented a paper on "Student Performance in the Six-Year Program" in that panel discussion. Dr. Arnold also participated in a panel discussion on the "Analysis of Stress in the Medical School Environment: An Alternative Approach." *Ms. E. Virginia Calkins*, assistant professor and coordinator for the Council on Selection, presented a paper on "Monitoring the Process of Selection: The Identification of Successful Applicants by Admissions Committee."

Newly elected officers of the St. Louis Hospitals medical and dental staff are *(left to right)* Ronald J. Auclair, M.D., vice-president; R. William Burmeister, M.D., president; and John J. Purcell, Jr., M.D., secretary-treasurer.

On November 1, *Anthony J. Hancock*, Ph.D., assistant professor, Department of Chemistry and School of Medicine, received notification of a federal award from the National Science Foundation. The two-year $63,700 grant, begins in February, 1979 and will allow Dr. Hancock to pursue his basic research in the "Role of Conformation in the Uptake and Metabolism of Cyclic Triglyceride Analogs in Normal and Transformed Cells." His work in the interaction of model lipids with other natural biological substances, such as membranes or lipid-requiring enzymes, will be undertaken in a tissue culture study. Earlier research in the design and creation of these model lipids was supported by two separate grants-in-aid from the Missouri Heart Association.

Dr. Hancock's laboratory is located in the School of Medicine.

## ST. LOUIS UNIVERSITY

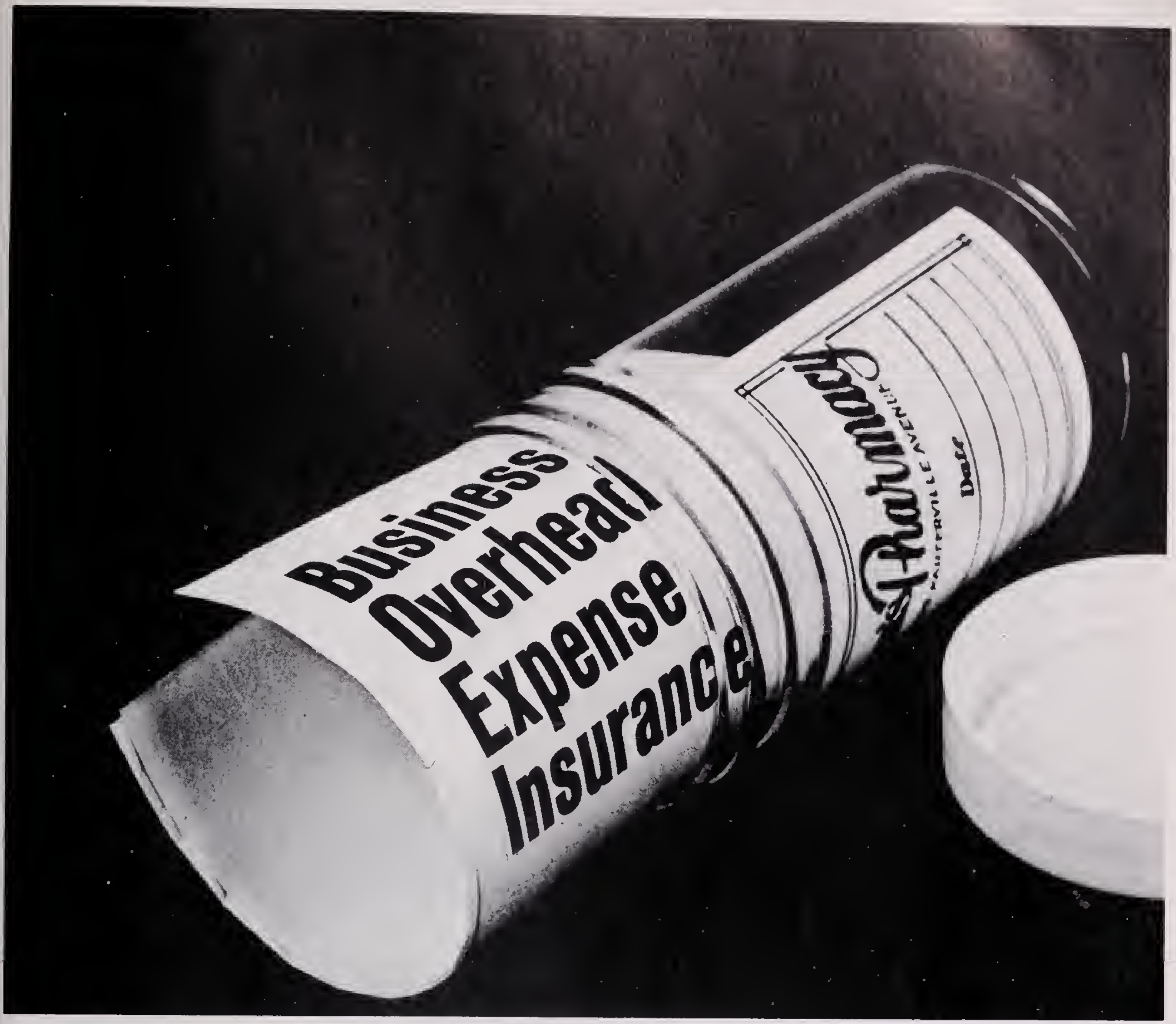
*R. William Burmeister*, M.D., has been elected president of the St. Louis University Hospitals medical and dental staff. He succeeds *J. Lester Zeffren*, M.D., associate clinical professor of internal medicine.

Dr. Burmeister, who holds the rank of assistant professor of internal medicine, was one of three physician-officers elected at a recent staff meeting. Others include *Ronald J. Auclair*, M.D., assistant clinical professor of internal medicine, who was named vice-president, and *John J. Purcell Jr.*, M.D., assistant clinical professor of ophthalmology, the new secretary-treasurer.

*Homer A. Lozeron*, Ph.D., associate professor of biochemistry, has received a $191,016, three-year grant from the National Institute of General Medical Sciences, HEW. Dr. Lozeron will investigate the regulation of development in biological systems, which may lead to a better understanding of certain types of thalassemia.

The study will center on ribonucleic acids and how they are altered by specific enzymes to produce functional messenger molecules which are utilized to synthesize proteins. Globin proteins, essential constituents of red blood cells, are not produced normally in some thalassemic disorders.

*Vernon L. Yeager*, Ph.D., professor of anatomy, was an invited speaker at the annual meeting of the Missouri Podiatric Medical Association held in Kansas City. His subject was "Anatomy of the Inferior Member."



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# Continuing Education Coming Events

*The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in* Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

**St. John's Mercy Medical Center**
615 S. New Ballas Rd., St. Louis 63141
*Contact:* James G. Blythe, M.D., Chairman, Dept. of Obstetrics and Gynecology

| (1979) | |
|---|---|
| May 10-11 | 11th Annual Matt Weis Symposium — Surgical Techniques in Obstetrics and Gynecology |

**University of Kansas College of Health Sciences**
Division of Continuing Education
Rainbow at Olathe Blvd., Kansas City, Kan. 66103
(913) 588-7130

| (1979) | |
|---|---|
| Feb. 22-23 | Gynecology and Obstetrics in the 80s |
| March 12-14 | Pediatrics |
| March 15-16 | Recent Advances in Therapeutics |
| March 29-30 | Sexuality of the Handicapped |
| April 2-3 | Ophthalmology: Ophthalmic Plastic Surgery |
| April 6-8 | Anesthesiology<br>(Crown Center Hotel, Kansas City) |
| April 23-24 | Noninvasive Cardiac Diagnosis |
| April 25-26 | Family Practice<br>(Radisson-Muehlebach, Kansas City) |
| April 27 | Infectious Diseases<br>(Radisson-Muehlebach, Kansas City) |

**Greater Kansas City Radiological Society**
*Contact:* G. David Dixon, M.D, President-Secretary
(816) 932-2550

| (1979) | (Afternoon and Evening Sessions) |
|---|---|
| Jan. 17 | Chest — Biopsies and CT |
| Feb. 21 | Neuroradiology — Use of Metrizamide |
| March 21 | Uroradiology |
| April 18 | Special Procedures |

**Washington University School of Medicine**
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 454-3837 or (314) 367-9673
*Contact:* Loretta Giacoletto

| (1979) | |
|---|---|
| Feb. 16-17 | TB Today |
| Feb. 22-23 | Use of the Laboratory in Clinical Practice |
| March-May | Internal Medicine Review (Weekly, day TBA)<br>(Steinbert Auditorium, The Jewish Hospital) |
| March 1-2 | An Update in Renal Diseases |
| April 19-20 | Recent Advances in the Diagnosis and Treatment of Hyperlipidemias |
| April 23-24 | Developmental Deviations in Children and Adolescents |
| April 26-27 | Sixth Annual Symposium on Obstetrics and Gynecology |
| May 2-4 | Washington University Medical Center Alumni Reunion |
| May 10-12 | Neuromuscular Diseases<br>(Breckenridge Pavilion Inn, 1 South Broadway) |
| May 31 | Newborn Metabolic Problems |

**University of Missouri-Columbia**
M-175 Medical Center, Columbia 65201
(314) 882-2256
*Contact:* William Bradshaw, M.D., Director

| (1979) | |
|---|---|
| April 9-10 | 25th Annual Urology Seminar<br>(Crown Center Hotel, Kansas City) |

**Missouri Chapter, American College of Surgeons**
Box 1268, Columbia 65205
(314) 449-4518

| (1979) | |
|---|---|
| June 22-23 | Annual Professional Meeting<br>(Alameda Plaza, Kansas City) |

**University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society**
**Continuing Medical Education**
**2220 Holmes St., Kansas City 64108**
**(816) 276-1339**
***Contact:* Alta Bingham**

(1979)

| | |
|---|---|
| **Jan. 21-26** | Mid-Winter Traveling Medical Education Course<br>(Steamboat Springs, Colo.) |
| **Feb. 9-10** | The Long Weekend: Infertility/Endocrinology |
| **Feb. 17-24** | Winter Traveling Medical Education Course<br>(Maui, Hawaii) |
| **March 4-10** | Late-Winter Traveling Medical Education Course<br>(Scottsdale, Ariz.) |
| **April 5-7** | Perspectives in Medicine |
| **April 20-21** | The Long Weekend: Neurology/Renal Diseases |
| **May 3-5** | Seminar: Update in Obstetrics and Gynecology |
| **May 17-18** | Surgical Problems—Old and New |
| **June 7-8** | Symposium: Physical Fitness |

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
(314) 454-2291
*Contact:* Ronald G. Evens, M.D.

(1979)

| | |
|---|---|
| Jan. 1 | City-Wide Radiology Conference: Ultrasound in Obstetrics and Gynecology |
| Feb. 2 | City-Wide Radiology Conference — Pediatric Radiology |
| March 3 | City-Wide Radiology Conference — Efficacy Studies in Radiology — The Barium Enema |
| April 9 | City-Wide Radiology Conference |
| May 14 | City-Wide Radiology Conference: Radiology of the Temporomandibular Joint |

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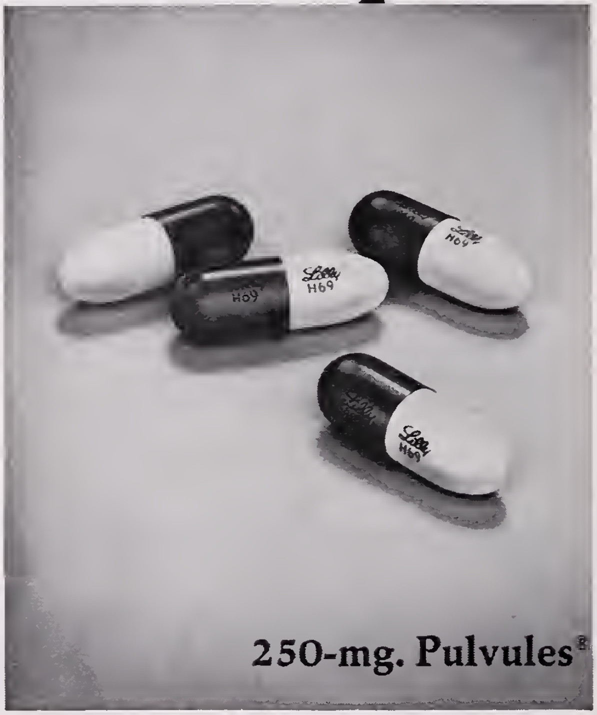
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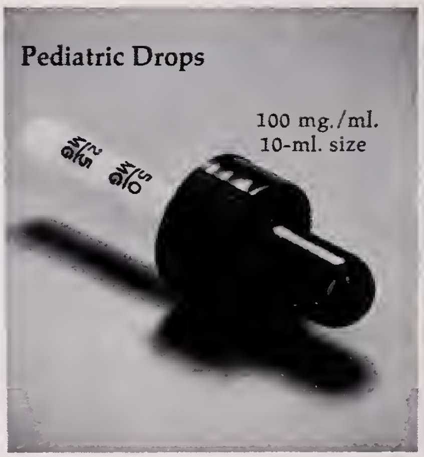
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**BEN W. PAPERMASTER, Ph.D.** *and*
**MARY LOU KALTENBACH, M.A.,** *Columbia*

# Lymphokine Preparations: A New Approach to Cancer Immunotherapy

Almost 100 years ago, the demonstration of acquired immunity to infection led to the development of immunology as a separate discipline in the biomedical sciences. Serum substances (called immunoglobulins) from animals injected with bacteria or other foreign antigens could inhibit bacterial growth, agglutinate bacteria and precipitate or neutralize toxic products from bacteria. They also could passively transfer immunity when given to a new host.[1] Studies on these serum antibodies led to the award of Nobel Prizes for the chemical structure of immunoglobulins to Dr. Gerald Edelman of the Rockefeller University of New York and Dr. Rodney Porter of Oxford University in 1972.

Extensive investigation is now being directed to cellular immune responses. Various questions still surround studies of molecular pathways and differentiation steps and the products released by responding cells in a cell-surface interactions.[1] The study of cancer immunology is concerned with these investigations. We are particularly interested in substances called lymphokines.

Lymphokines or, as they are otherwise known, mediators of cellular immunity, comprise a large group of hormone-like substances that act as transmitters among cells in the immune system.[2, 3] Both antigen-specific and nonspecific cellular functions are regulated by lymphokines. The idea is to prevent some of the complications which arise from injecting live microorganisms such as bacillus Calmette Guerin (BCG) and human cells by using these secreted molecules alone. Conceptually, this is similar to the use of insulin and other hormones in replacement of endocrine function. In this way, lymphokines can be compared to endocrine hormones (indeed, they are structurally similar) and their administration can affect cancer patients who have been shown to be deficient in some lymphokines.[2, 3]

Several groups have noted tumor regressions after injecting crude preparations of interferon and other lymphokine-containing cell culture medium into patients.[4, 5] However, it is not yet possible to determine which lymphokines are responsible for inducing tumor regression until more clinical experience is obtained with crude preparations and, then, with purified, characterized fractions. Clinical experience with crude supernatant materials is necessary because of possible synergistic and cumulative effects of the various mediators. An important component could be lost if preparations were even partially purified. In order to obtain enough working material to develop a crude preparation for our studies, we have had to use a continuous human lymphoid cell line containing lymphokine activity.[5]

## Materials and Methods

Human lymphoid cell lines were established and maintained and the supernatant lymphokines were prepared as described previously.[6-8] Crude

**Cancer immunology is a burgeoning science. Lymphokines, or mediators of cellular immunity, are hormone-like substances that act as transmitters among cells in the immune system. The authors describe some results of several preliminary clinical studies with lymphokines in cancer patients.**

**Dr. Papermaster is nationally recognized for his work in biological activity, genetics and tumor immunology. He is the new Scientific Director of the Cancer Research Center. He formerly was Professor of Biochemistry and Genetics in the Department of Human Biological Chemistry and Genetics, Division of Biochemistry, University of Texas Medical Branch in Galveston, Tex. Ms. Kaltenbach is Administrative Assistant in charge of manuscripts, grants and contracts at the Cancer Research Center.**

supernatant concentrates and fractions were assayed *in vitro* for the following lymphokine activities:

1. *Migration inhibition* (MIF) was measured by using a new radiolabelled cell technique which allows migration to be in a liquid scintillation counter.[9]

2. *Lymphotoxin:* Lymphotoxin activity was quantitated in 24 hours by using a mouse lymphoma target cell line as a new assay.[10]

3. *The chemotactic factor* was determined by migration of human and rabbit neutrophils and monocytes under agarose measured by using a microtechnique described by Nelson *et al.*[11]

4. *Monocyte activation:* Peritoneal mouse monocytes were obtained from the peritoneal cavity and activated *in vivo* and *in vitro* by using lymphokine preparations. Both enzyme content and cytotoxicity toward tumor targets were measured.

5. *Inflammatory skin tests:* Guinea pigs were injected intradermally with 0.2 ml of various dilutions of lymphokine fractions in duplicate on either side. Patients were injected intradermally with 0.1 ml of similar dilutions. Induration and lesion size were measured as described elsewhere.[7]

6. *Mouse tumor inhibition:* Mice were inoculated with tumor cells from mice bearing ascites tumors. When cells were injected into the ventral surface in a shaved area over the abdomen, subcutaneous tumors developed. Animals then were given lymphokine fractions intraperitoneally and intralesionally. Evaluation of responses was made by measuring tumor sizes and comparing treated and untreated animal survival curves. Intraperitoneal (IP) ascites tumors were injected into test animals which were, in turn, inoculated intraperitoneally with lymphokines or drugs or both and compared with regard to survival times.

7. *Patient treatment:* Patients meeting suitable criteria of selection were skin tested as in No. 5 above. If results were positive, they were injected peri- and intralesionally with up to 2 ml or 120 units per treatment.

## RESULTS

An assay system was developed to study the anti-tumor characteristics of lymphokines involving the transplantable L1210 lymphoma in mice. Each mouse was examined on the ventral surface for tumor seven days after subcutaneous inoculation (SC) of $10^5$ L1210 cells. More than 98% had tumors by ten days. Survival data were accumulated after study of 109 control animals injected subcutaneously with tumor cells only, and the median survival time (MST) was 17 ± 2 days. For mice injected intralesionally and intraperitoneally with a control fraction prepared from culture medium without cells, survival curves were indistinguishable from mice receiving only tumor cells.

Mice were divided into groups of 20 to 30 experimental and control animals. Dosages and routes of injections varied from group to group. Beginning seven days after tumor injection, mice received inoculations of lymphokine preparations three times a week. They were injected with 0.1 ml intraperitoneally or intralesionally or both. Regression was determined through observation of lesion size, appearance, gross disappearance and microscopic presence or absence of metastases.

All animals were examined daily and survivor curves were determined by the computer programs used for cancer patients.[12] The mice with subcutaneous tumors receiving local lymphokine injections showed a statistically significant increase in survival time over controls. Forty per cent demonstrated complete cures, i.e., they did not develop tumors after being reinjected with from ten to 100 times the number of original tumor cells. These mice also were examined by the pathologist for metastases. In treated mice, there were signs of a rejection reaction and chronic inflammation including macrophage infiltration around the local tumor site. Controls showed metastases to liver, lung, spleen and peritoneum. Treated animals showed few, if any, metastases in these organs.

The experiments above demonstrated several possibilities for use of lymphokines in local tumor control and regression, but what about disseminated tumors and systemic therapy? Beyond the local stage, the ascites tumor of L1210 cannot be treated by immunotherapy, and our attempts with lympokines were also unsuccessful. Thus, successful treatment of ascites tumor, L1210, in the mouse might provide a model for systemic therapy with lymphokines.

Two observations caused us to use chemoimmunotherapy rather than immunotherapy alone. First, L1210 cells injected intraperitoneally reach log phase at 2 x $10^8$ cells in the peritoneal cavity between seven to ten days after inoculation. Second, depending upon tumor doubling time ($<20$ hours) and the size of the inoculum, the tumor growth rate in the peritoneal cavity vitiates any immunotherapeutic effect of lymphokines or activated macrophages or both on ascites tumors. Consequently, 20 mg/kg of a chemical agent, methyl 1-(2 chloroethyl)-3-(4 methylcyclohyxyl)-1nitrosourea (NSC 9544) (MeCCNU), were injected intraperitoneally every three days.

Control animals and animals treated only with lymphokines had an MST of only 15 days, whereas when both MeCCNU and lymphokines were used, the MST was 23 days ($p < 0.1$). The MST for animals treated only with MeCCNU was 19 days. While preliminary, these experiments suggest that the combined use of cancer drugs and immunopotentiating agents, such as lymphokines, may yet attack the more difficult tumors. The cytotoxic effect of the drugs on the immune system may, in part, be counteracted by the immunopotentiating agent. Thus, in our experiment, the preliminary data indicated that treatment of mice with both MeCCNU and lymphokines was more effective than either agent alone and that lymphokines were effective systemically under these conditions.

Additional studies from those already published[7] were conducted to determine potential diagnostic and therapeutic applications of a human lymphokine preparation in patients with melanoma at the M. D. Anderson University of Texas Tumor Institute with Drs. A. Rios, J. U. Gutterman and E. M. Hersh. The supernatant of lymphoblast cell line RPMI 1788 was used to obtain lymphokine preparations. These preparations were studied quantitatively as a skin test reagent to evaluate inflammatory response to intradermal injection.

We did histology and toxicity studies as well as a dose response curve in 53 patients who had stages IIIB and IV malignant melanomas. A dose response curve was obtained for the skin reaction to lymphokines. Five units were determined to be the optimal intradermal dose for eliciting inflammation. Biopsy specimens showed a mixed cell reaction that included eosinophils, granulocytes, lymphocytes and monocytes. The lymphocyte content differed from the typical delayed type hypersensitivity reaction in man. Therefore, a use for lymphokines may be the evaluation of a cancer patient's ability to develop nonspecific inflammation from skin tests. Moreover, this inflammatory response can be obtained in many patients whose bodies are no longer capable of responding to recall antigens because of extensive tumor burden, chemotherapy or radiation therapy.

Twelve patients who had appropriately spaced dermal metastases of melanoma received intralesional injections. In addition, four patients received intralesional lymphokine inoculations 48 hours after BCG was applied by sacrification distal to the lesions. Eight other patients had intralesional injection of lymphokines only. Forty-eight hours after lymphokine injection, ten of 12 patients had clinically and histologically proved regressions that were less than 50% decreased in size. Complete regressions were verified by pre- and post-treatment biopsies in the four patients receiving BCG and lymphokines.

Preliminary studies made in collaboration with Dr. Isaac Djerassi at the Mercy Catholic Hospital in Philadelphia have indicated that patients with disseminated tumor and a palpable subcutaneous nodule responded positively to injection with 120 units of lymphokines by subcutaneous injection in the contralateral arm. Thus, these materials can act systemically.

Before these preparations are ready for prospective controlled trials, much more in the way of additional experiments are necessary; additional purification procedures, animal toxicity testing, better *in vitro* assays and clinical studies on dose and route of administration.

The progress to date, however, suggests that molecular immunology research will be of benefit to the cancer patient.

## Summary

1. Human lymphoblastoid cell lines are definitely good sources of lymphokine activity. They

(Continued on page 612)

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# Screening for Radiation-Associated Thyroid and Salivary Gland Cancer

CURRENT INTEREST in the association between radiation therapy for benign conditions and the subsequent development of neoplasms has been provoked by reports of salivary and thyroid gland tumors in persons who received irradiation during childhood.[1-3] During the infancy of radiation therapy, irradiation was used in the treatment of pertussis, thymic enlargement, chronic tonsillitis, ringworm, acne vulgaris, adenoidal hypertrophy, deafness from hypertrophied lymphoid tissues surrounding the eustachian tubes, mastoiditis, sinusitis, hemangiomas, and keloids of the head and neck (Fig. 1).[4] Exposure was in the form of x-irradiation and radium or radon applicators (Fig. 2).[4] Approximately a million people in the United States and approximately 30,000 people in Missouri were treated by x-ray for acne. Approximately one fourth of those persons who received x-ray treatment will have a thyroid abnormality and one third of these will be cancer.[5] Fortunately, the iatrogenic side effects were recognized and such therapy was discontinued two decades ago. All physicians need to be aware that this population is at high risk for development of thyroid or salivary gland tumors even 30 or more years after the radiation exposure. Questions about prior irradiation should be a routine part of the patient's medical history.

COMPARISON BETWEEN TREATMENT OF THE TONSILS WITH RADIUM AND TONSILLECTOMY

| *Tonsillectomy* | *Radium* |
|---|---|
| Anesthetic | Anesthesia avoided |
| One or more operations | A few painless treatments |
| Infected tissue in other parts of throat untreated | Other infected tissue may be treated |
| Shock | No shock |
| May remove other tissues than the tonsil | Removes only tissue it is desired to be rid of |
| Hemorrhage | No hemorrhage |
| Infection | No infection |
| Great soreness in throat | Avoided |
| Occupation interrupted | Occupation uninterrupted; an economic saving |
| Postoperative hemorrhage | No hemorrhage |
| Lung complications | No lung complications |
| Ear infection | No ear infection |
| May take a week or more for adults to recover fully from operation | Improvement in general condition sometimes begins within a day or two, and it continues |
| Operation inadvisable because of condition of patient | Can be used for patients who are not good operative risks |
| Many of the above, of course, seldom occur; in rare instances death may result | No deaths |
| Recurrences frequent | Recurrences infrequent |

Fig. 1 Table from a 1935 textbook of radiation therapy promoting the use of radium treatment of the tonsils.[4]

There is a long latent period between the radiation exposure, the carcinogenic stimulus, and the subsequent development of a malignant tumor. During this interval, no clinical abnormalities can be detected.[6] Thyroid and salivary gland lesions may arise five to 35 or more years after radiation exposure.[2, 3, 7] In a study of 1,922 individuals exposed, Schneider *et al*[3] noted that the tumor incidence was not declining even after 35 years. Therefore, the exposed individual needs lifetime follow-up.

Although thyroid cancer is relatively rare, the common use of radiation therapy for benign conditions more than 20 years ago is apparently being translated into an absolute increase in the incidence of the disease. The incidence of thyroid cancer has increased 50% from 1947 to 1971. In whites between the ages of 25 and 35, there has been a two- to four-fold increase.[8]

In general, the younger the patient at the time of exposure, the shorter the period of latency before the development of overt thyroid disease. Infants and children have the greatest risk of development of thyroid nodules (benign or malignant) from exposure to ionizing radiation. Infants tend to develop nodules within ten to 15 years, whereas the interval is 25 years for children irradiated for tonsillitis and 35 to 40 years for patients treated for acne vulgaris in their late teens or adulthood.[2] Dose and volume effects also may account for the increased susceptibility of infants and young children; a relatively greater radiation dose is received, per unit mass, in a small thyroid gland.[5]

The dose range most often associated with thyroid carcinoma is from 50 to 500 rads.[5, 7] The prevalence falls dramatically with doses of more than 2,000 rads, where thyroid parenchyma is destroyed and thyroid cell replication is inhibited.[7] In Graves disease treated with radio-iodine-131, many times this dose is given.

In their report of the cooperative thyrotoxicosis therapy follow-up study, Dobyns *et al*[9] reviewed the incidence of neoplasm following radio-iodine therapy in 20,000 patients. They found that the risk of developing malignant neoplasm five years after $^{131}$I treatment was not significantly greater than that after thyroid surgery. Safa *et al*[10] found no cases of thyroid cancer in 87 children and adolescents receiving radio-iodine therapy for Grave's disease. They were followed for a mean interval of 12 years. Because of the latent interval effect, some authors believe it is too early to assert that there is no relationship between $^{131}$I and thryoid cancer since radio-iodine therapy has been available for only 30 years.[5] It is estimated that another ten to 15 years will be required to determine the association between high-dose radio-iodine scanning and subsequent thyroid carcinoma.[5]

"Low dose" radio-iodine scanning, particularly in the preadolescent, should be discouraged because $^{131}$I delivers an estimated 100- to 200-rad dose compared to 0.1 rad for technetium-99M and 2.8 rad for $^{123}$I scanning.[11] The diagnostic use of $^{131}$I continues because of convenience and widespread availability, but its withdrawal is being considered seriously.[4,11]

Of the thyroid nodules found in individuals who had received x-ray treatments, 33% to 60% are found to be cancer.[2] In most series, these tumors are follicular carcinoma, papillary carcinoma or mixed papillary-follicular.[5] They grow slowly, metastasize late and have a prognosis similar to that of spontaneous thyroid cancer.[2] They are surgically curable if still localized, but approximately one third will have metastasized to regional nodes at the time of diagnosis.[1, 4, 11]

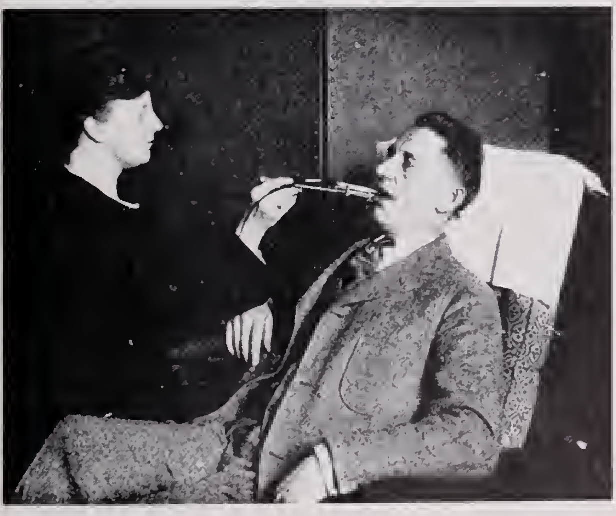

Fig. 2 Application of an intra-oral radium source for treatment of the tonsils.[4]

**In response to inquiries from referring physicians regarding the relationship of radiation therapy for benign conditions of the head and neck or thymus and the subsequent development of thyroid or salivary gland cancer as well as the appropriate evaluation of individuals exposed to this type of radiation hazard, the Ellis Fischel State Cancer Hospital (EFSCH) formed an ad hoc committee to prepare a report to the physicians of Missouri. The committee was composed of a radiation therapist (Dr. Doss), an internist (Dr. Kardinal) and a pathologist (Dr. Ronald Oxenhandler). The purpose of this report is to alert physicians to the problem as well as to the indications for biopsy or referral.**

**Dr. Doss is Associate Director of Radiation Therapy and Dr. Kardinal is Director of Internal Medicine, EFSCH and Cancer Research Center.** **This investigation was supported in part by Biomedical Research Grant No. RR-05618 from the National Institutes of Health.**

Patients with a history of radiation-induced thyroid cancer have been reported recently to have a 13- to 40-fold increase in their chance of developing a salivary gland tumor.[3, 8] Most of these are malignant mixed cell tumors of the parotid gland.[12] Unlike thyroid tumors, the growth of salivary gland tumors does not seem to be closely associated with the patients' ages at the time of radiation therapy or the radiation doses.[3] The development of salivary gland tumors also is associated with a long latent period, with the rate accelerating after the 15th post-irradiation year.[3] Radiation-induced malignant salivary gland tumors are potentially surgically curable. With appropriate therapy, the patients' median survival is 9.6 years.[3, 12]

Physicians encountering a patient with a history of previous head and neck irradiation should do a meticulous inspection and palpation of the thyroid gland. If a nodule is palpable, a thyroid scan is indicated. If no nodules are palpable, the value of thyroid imaging is a controversial subject at the present.[4, 13] Patients who have an abnormal scan but not a palpable nodule should not have surgery routinely. Thyroid hormone suppression and an annual physical examination are the recommendations for such cases.[5] Surgery is reserved for those patients who have a palpable nodule and an abnormal scan, i.e., a scan demonstrating a hypofunctioning ("cold") nodule.[4, 13]

Serum thyroglobulin levels are of value only in assessing metastatic disease or in detecting recurrence in known thyroid cancer cases.[5] Since the serum thyroglobulin level can be evaluated in a variety of benign conditions, it is a poor tumor marker and, therefore, is not recommended for screening. Other serum studies of thyroid function are also of no specific diagnostic value.

### SUMMARY AND RECOMMENDATIONS

1. All individuals exposed to radiation therapy for benign conditions of the head and neck or thymus are at risk for the development of thyroid or salivary gland neoplasia.
2. There is a long latent period (from five to 35 or more years) between the radiation exposure and the subsequent development of cancer.
3. Because of the long latent period, lifetime screening is necessary.
4. An annual or semiannual physical examination of the thyroid gland is the fundamental method of screening.
5. If a nodule is detected, an $^{123}$I scan is recommended.
6. If the nodule is hypofunctional ("cold") on scan, it should be excised.

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# *Lymphokine Preparations*

*(Continued from page 609)*

can be grown in large quantities for preparation of lyophilized supernatant starting material.

2. These supernatants contain *in vivo* inflammatory, and *in vitro* migration inhibition factor (MIF), monocyte activation factor (MAF), lymphotoxin and chemotactic activity.
3. These supernatants produce antitumor effects and significant tumor regressions in mice bearing subcutaneous L1210 tumors. Lymphokines are effective only in combination with MeCCNU in ascites tumors.
4. Lymphokines produce an indurated inflammation in skin test sites and partial to complete regressions of intralesionally-injected metastatic melanoma nodules in patients.
5. Preliminary studies show promise for the eventual use of lymphokines as adjuvant, immunotherapy via local and systemic routes.

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# Current Concepts in Breast Cancer Management

## *Part I. Epidemiologic Considerations in Breast Cancer in Women and Men*

In the United States, carcinoma of the breast is the most common cause of cancer death in women. There are 33,000 breast cancer deaths and 90,000 newly diagnosed cases per year. One of every 15 American women (6.7%) develops breast cancer. In more than half, the disease will ultimately claim their lives.[1] This is a disease of epidemic proportions with an incidence of 72 new cases per 100,000 women per year.

For centuries, the standard therapy for breast cancer has been surgery and the standard surgical procedure for the 80-year period after Halsted was the radical mastectomy. Oncologists are now taking a fresh look at this disease, and there have been several recent significant advances. The most notable have been the development of mammography, the introduction of adjuvant chemotherapy in operable cases at high risk of recurrence and the demonstrated association of hormonal responsiveness with the presence of specific hormonal receptors in breast cancer tissue. Even the standard radical mastectomy is no longer sacred and is being challenged by the modified radical mastectomy (leaving the pectoralis major), the total or simple mastectomy and, even, the segmental mastectomy in selected cases. Concepts of breast cancer are as old as the history of cancer and as new as the most modern research.

### Risk Factors in the Development of Breast Cancer (Table 1)

The increased incidence of breast cancer in nuns was recognized by Ramazzini in 1700. Ramazzini felt that the increased incidence was related to their celibacy rather than to their occupational endeavors. The increased risk of breast cancer in nulliparous women has been reconfirmed in modern times and is approximately twice the expected incidence.[2] Conversely, early parity seems to be protective, and women who are parous before the age of 18 have one third the risk of breast cancer as those who are first parous at age 35 or older. Multiparity was once felt to reduce risk, but this probably relates to the fact that multiparous women also tend to have children at a younger age.

Duration of menstrual cycling is also a risk factor in the development of breast cancer.[1] Women with menarche after age 16 have an incidence of breast cancer that is approximately half of that of women with early menarche. Conversely, women with a natural menopause at age 55 or older have twice the risk of the development of breast cancer as women with natural menopause prior to age 45. Castration prior to age 40 seems to be protective, but hysterectomy without castration is not.

The increased incidence of mammary carcinoma in first-degree relatives of patients with breast cancer is well documented.[3] There is at

TABLE 1
RISK FACTORS IN THE DEVELOPMENT OF BREAST CANCER

| *Attribute* | *Increased Risk* | *Decreased Risk* |
|---|---|---|
| Parity | Nulliparous | Early pregnancy |
| Menstrual history | Early menarche<br>Late natural menopause | Early castration |
| Race | Caucasian | Oriental |
| Benign breast disease | + | |
| Positive family history in first degree relatives | ++ | |
| Carcinoma of the opposite breast | +++ | |
| Lactation and nursing | — | — |

This is the first segment of a four-part, comprehensive article which presents a review of the current concepts of breast cancer management. Parts II, III and IV will appear in future issues.

The series will deal with risk factors in the development of breast cancer, etiologic considerations, the relative prognosis of the various histologic types of breast cancer, prognostic factors, the mammography controversy, controversies in the primary therapy of breast cancer and the management of the patient with advanced disease. The following outline will provide an overall view of this work:

Part I

Epidemiologic Considerations in Breast Cancer in Women and Men

Part II

Pathologic Considerations and Early Diagnosis

Part III

Staging, Primary Therapy and Adjuvant Chemotherapy

Part IV

Approach to the Patient with Advanced Disease

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least a twofold to threefold increase in the incidence of breast cancer in mothers and sisters of breast cancer patients as well as an increased incidence of benign and malignant neoplasms in the daughters of these patients. Familially associated breast cancers occur in patients at a younger age than random lesions and are more commonly associated with premenopausal breast cancer in the proband than postmenopausal lesions. When the malignant disease is bilateral, the increased risk of breast cancer in these patients' first-degree relatives is fivefold. If the disease is both bilateral and premenopausal, however, it is ninefold. The increase risk is specific for breast cancer, but not for malignant tumors in general.[4]

Benign breast disease, such as ductal or lobular hyperplasia, papillomatosis, and fibrocystic disease, is associated with a twofold to fourfold increase in breast cancer.[5] It now has been well documented that women who are taking oral contraceptives for more than one year have a reduced incidence of benign breast disease.[6] Rates of breast cancer occurrence are lower in users than nonusers, but this is not statistically significant. However, it can be safely stated that women who are taking oral contraceptives are not at increased risk of the development of breast cancer.

Carcinoma of the opposite breast increases the risk of the development of cancer in the remaining breast by a factor of five.[1, 4] The increased risk in premenopausal women may be as great as tenfold. This mandates that all postmastectomy patients be followed closely, be instructed in self-examination and have annual or even semiannual mammograms. It also is important to realize that synchronous bilateral primaries occur with a high enough frequency (2%) that all women with carcinoma of one breast should have a concurrent mammogram of the opposite side. In one third to one half of all patients with lobular carcinoma in situ, multicentricity and synchronous bilaterality will be evident.

There has been a protective effect attributed to lactation and nursing with reference to breast cancer, but this has not been confirmed in prospective studies which have been adjusted for age, parity and socioeconomic status.[7] There are several other parameters which have been implicated as risk factors for breast cancer, but the supporting data are soft. These are obesity, high fat diets, hypothyroidism and the use of menopausal estrogen supplementation.[8] There is an association between regular reserpine use and breast cancer, but cause-effect has not yet been documented.[9]

The race of the patients appears to be a factor. The incidence of breast cancer among Japanese women in Japan is one fifth of that of white women in the United States. The incidence of breast cancer in Japanese women in the United States increases after several generations, but it does not become equal to that of white women.

## ETIOLOGY

The exact etiology of human breast cancer is unknown. As is implied in the previous section on risk factors, however, a variety of issues may be involved. The two most important factors seem to be the hormonal milieu and familial factors. The familial factors are especially difficult to interpret because family members are likely to be exposed to the same chemical carcinogens and infectious agents as well as their eating similar diets and living similar life styles.

Familial factors also can be explained by viral oncogenes with horizontal or vertical transmission as well as by Mendelian traits. With the observation that the mammary tumor virus in mice was transmitted by milk (the Bittner milk factor), there has been a search for virus particles in human milk and breast cancer tissue.[10] Virus-like particles have been found in the milk of family members of breast cancer patients. Also, these particles have been shown to contain RNA-directed DNA polymerase (reverse transcriptase), an enzyme found in RNA tumor viruses.

That some breast tumors are hormonally responsive has been recognized for more than 80 years, but the role of the hormonal milieu in the etiology of breast cancer remains obscure. The normal development and function of the mammary gland is dependent upon estrogen, progesterone, prolactin, growth hormone and insulin. Approximately half of human mammary cancers contain specific hormonal receptors for estrogen and for progesterone. To a degree, presence is predictive of hormonal responsiveness. As yet, there is no known correlation between the presence of hormonal receptors and other etiologic factors in breast cancer.

Rodent mammary cancers contain specific prolactin receptors and are responsive to the stimulatory effects of this hormone, but the role of prolactin in human breast cancer remains disputed. Prolactin receptors have not been demonstrated in human breast cancer, and serum prolactin levels in breast cancer patients are the same as in normal women.[11]

## Cancer of the Male Breast

Carcinoma of the male breast is a rare tumor that is approximately 100 times less frequent than cancer of the female breast.[12] Characteristically, breast cancer in men occurs at a later age than in women and is more frequently locally advanced. Nipple changes such as ulceration, local edema, inversion or encrustation are common. The usual presentation is a subareolar mass with fixation to the underlying tissue with or without ulceration. All of the varieties of breast cancer seen in women, including inflammatory cancer, have been reported in men but, as in women, the most frequent type is infiltrating duct cancer.

A mass in the male breast is almost always either gynecomastia or carcinoma. The high frequency of pubertal gynecomastia compared with the rarity of carcinoma in this age group is a strong argument against biopsy of breast masses in adolescent males. Conversely, senescent gynecomastia must be evaluated more thoroughly and approached more cautiously.

Carcinoma of the male breast has been reported to have a poorer prognosis than female breast cancer, but this was not noted in the series reported by Donegan and Perez-Mesa.[13] The etiology of this tumor is unknown. Trauma has been an inconsistent association and probably only calls the patient's attention to the lesion. Hormonal imbalance may be related to the development of male breast cancer as is evidenced by the greater incidence in individuals with Klinefelter's syndrome.

Therapy is essentially the same as for female breast cancer. Radical mastectomy has been used most frequently since the lesions are usually locally advanced at the time of initial presentation. Lesions associated with axillary node involvement have a much poorer prognosis (5%-20%, five-year patient survival) than those with negative axillary nodes (62%, five-year survival). The overall five-year survival rate is 35%.

Recurrence patterns are similar to female breast cancer with frequent soft tissue and skin recurrences as well as bone and visceral metastases. Male breast cancer is hormonally responsive and approximately 50% will achieve an objective response to castration. Various other hormonal maneuvers, such as adrenalectomy, androgens and estrogens, have been reported to be effective. The cytotoxic chemotherapy for metastatic male breast cancer is the same as that described for women.

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**RAMESH PATWARDHAN, M.D.** *and*
**LARRY L. DOSS, M.D.,** *Columbia*

# Radiation Injuries to the Bowel

## *An Overview*

RADIATION THERAPY continues to become increasingly popular as a treatment modality for pelvic cancers. In this connection, it is used most frequently in the treatment of gynecologic cancer. Unfortunately, the cancerocidal dose of radiation can approximate and even exceed the "tolerance dose" of the small and large intestines (Table 1). The consequences of this are manifested by definite histological changes in the bowel, acute and long-term suffering and the risk of mortality.

A common regimen used in the treatment of carcinoma of the cervix is shown in Table 2. Supplemental irradiation of the central tumor mass is usually required, utilizing a radium or cesium implant in a uterine tandem-vaginal ovoids system. After 2,500 to 3,000 rads have been received at the mid-pelvic plane, the mucosa of the bowel shows signs of edema and degeneration of its microvilli.[1] The absorptive capacity of the gut is decreased and the patient develops diarrhea. On completion of the full course of treatment, however, the villi regenerate and the diarrhea eventually ceases in most instances.

**The incidence of radiation injuries to the bowel has risen commensurately with the advent of megavoltage radiotherapy and its increasing use in the multi-modality approach to cancer treatment. A distinct correlation exists between the symptoms for this type of injury and the histological changes produced by it. A better understanding of the pathogenesis, clinical manifestations and management of this condition as presented in this article should benefit both the clinician and the patient.**

**Dr. Patwardhan is from the Department of Surgery and Dr. Doss is Associate Director, Department of Radiation Therapy, Ellis Fischel State Cancer Hospital and the Cancer Research Center.**

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This is, more or less, the usual course of events, and there will be few injuries with doses of 4,500 rads in five to six weeks. However, a dose of between 5,000 and 6,000 rads to the entire pelvis will be attended by a 50% probability of serious damage.[2] Rarely, the intratherapy diarrhea will progress, following completion of radiation therapy, until a catastrophic acute clinical episode occurs. At this time, a sudden onset of severe abdominal pain accompanied by nausea, vomiting, distention and bloody diarrhea occurs.[3] Perforation of a radiation ulcer or gangrene of loops of bowel may be detected as a palpable mass in the abdomen.[3] This mass may be mistaken for recurrent tumor invading the bowel wall.

More commonly, a "latent interval" follows a regimen which exceeds intestinal tolerance.[4] Any time from six months to 15 or 20 years following irradiation, symptoms consistent with enterocolitis, such as bloody diarrhea and abdominal cramping, may arise.[1] These symptoms may be accompanied by malabsorption, malnutrition and anemia. The patient may develop signs and symptoms consistent with intestinal obstruction, hemorrhage and spontaneous perforation with peritonitis or fistula formation, or various combinations of these.[3] These more serious complications of radiation injury to the gut are those that lead to increased morbidity and mortality. Fortunately, their incidence is low. Figures ranging from 0.6% (Roswell Park, Buffalo, New York)[5] to 11.6% (J. DeCosse, Cleveland, Ohio)[6] have been quoted in the literature.

On gross examination, the irradiated bowel appears whitish with thickened walls due to fibrosis and has multiple fibrin deposits on its surface. The mucosa is inflamed and often ulcerated. The bowel wall is immobile and inelastic and has a thickened friable mesentery. In some cases, dilatation of the submucosal lymphatics is a prominent feature.[7] The transition from diseased bowel to normal bowel is smooth and gradual. This ab-

### TABLE I
### RADIATION TOLERANCE DOSES OF ABDOMINAL AND PELVIC ORGANS[1]

| *Organ* | *TD/ 5/5* | *TD 50/5* |
|---|---|---|
| Stomach | 4,500 | 5,000 |
| Intestine | 4,500 | 6,000 |
| Colon | 4,500 | 6,500 |
| Rectum | 5,500 | 8,000 |

Using conventional fraction, 750-1,000 rads/week in five-day courses with megavoltage or telecobalt modality.
TD 5/5 = 5% risk of damage in five years (minimal).
TD 50/5 = 50% risk of damage in five years (maximum).

### TABLE 2
### REGIMEN FOR GYNECOLOGICAL CANCER

| | |
|---|---|
| Modality | Megavoltage or telecobalt |
| Daily fraction size | 150-200 rads mid-pelvis dose |
| Days per week of treatment | Five |
| Volume of treatment | Whole pelvis: antero-posterior and postero-anterior portals; followed by translateral whole pelvis, left and right |

sence of an abrupt cutoff point between irradiated bowel and normal bowel is of great surgical significance.

DeCosse *et al* also have emphasized the high degree of vasculitis produced by radiation.[6] The small vessels of the mesentery undergo endothelial cell destruction with resulting arterial wall thickening and luminal obstruction. In situations in which mesenteric or splanchic blood flow is already compromised by diabetic or hypertensive vasculopathy, radiation injury compounds the disease situation and leads to early and irreversible ischemia of the intestine. Unfortunately, the process is progressive and irreversible once serious complications have set in.[1]

The most vulnerable portions of the bowel affected by radiation are those fixed points, such as the region of the ilecocecal valve or loops of bowel, which have been rendered immobile due to adhesions from previous abscess formation or surgical trauma.[8, 9]

Often a sigmoid bowel loop falls into the cul-de-sac and becomes entrapped there by adhesions (Fig. 1).[10, 11] A barium enema prior to the radium (or cesium) intrauterine implant can demonstrate such a fixation, allowing alterations of the treatment plan so as to avoid bowel injury.[3] Loops of small bowel also may become adherent to the uterine body which causes them to receive high doses of radiation from the implant.[12] This high radiation can lead to ischemic necrosis and perforation or stricture formation.[13]

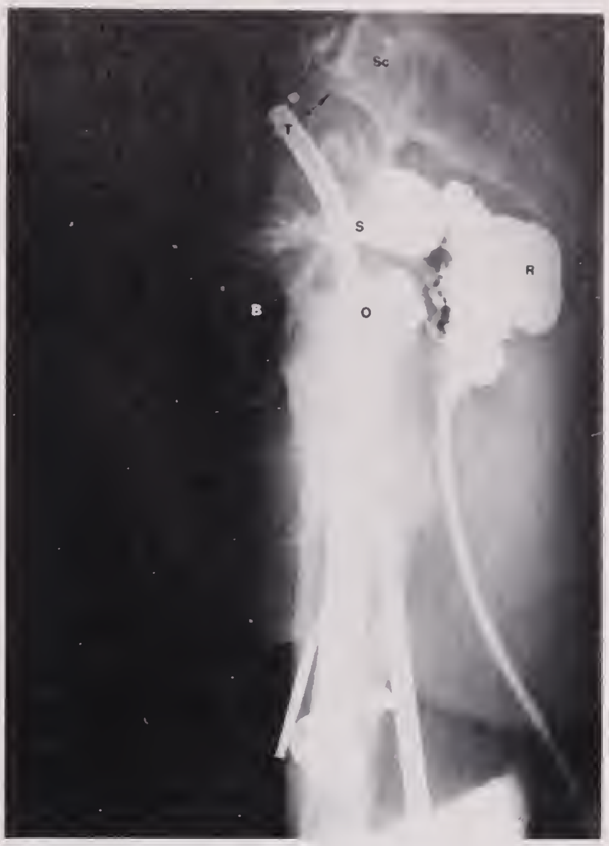

Fig. 1 Lateral pelvic radiograph demonstrating high and posterior placement of uterine tandem (T). Note very short distance between tip of tandem and sacrum (Sc); sigmoid bowel is trapped between them. Such placement can lead to radiation sigmoiditis due to dosage exceeding bowel tolerance.

In the past, when radium therapy was the only modality used in the treatment of gynecologic cancer, only 2% to 3% morbidity was encountered.[3] Although the rectum tolerates radiation best (Table 1), a higher incidence of chronic late rectal damage is being encountered with wider use of megavoltage equipment in conjunction with radium.[1, 14] Our present use of tissue doses in excess of 6,000 rads, as well as a capability to treat large volumes, has increased not only the local control rate of pelvic tumors but, also, the incidence of rectal stenosis, ulceration and fistula(e) (Fig. 2).[12, 14]

Other factors predisposing to radiation injuries of the gut are summarized in Table 3.

The symptoms reflect the pathologic state of the bowel. Mucosal damage leads to colitis manifested by diarrhea (at times bloody) and malabsorption which, in turn, can lead to anemia, hypocalcemia and hypoproteinemia. A relatively

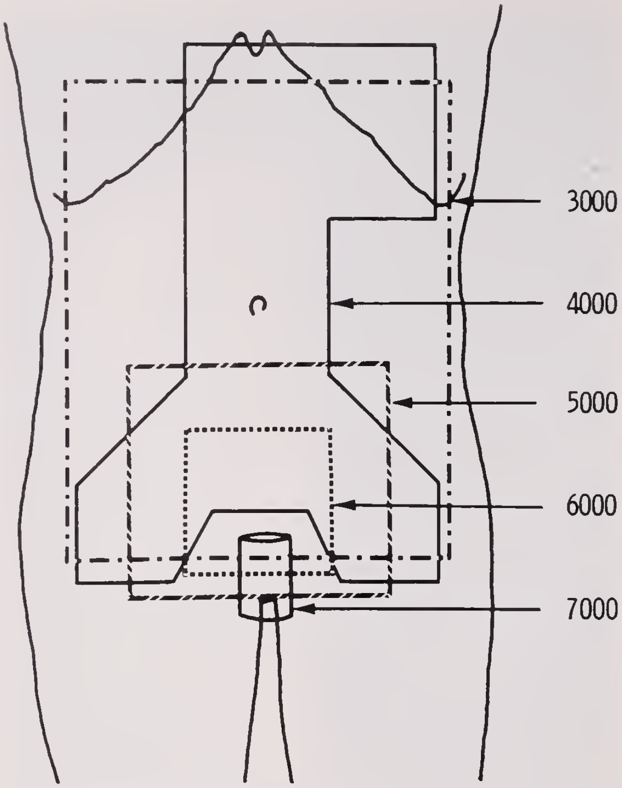

**Fig. 2** Anatomical volumes commonly used in external radiation therapy regimens and their maximum tumor doses. For total abdomen treatment, e.g., abdominal lymphoma or advanced ovarian cancer, 3,000 rads represents the maximum tolerated dose. For inverted "Y," 4,000 rads, e.g., in Hodgkin's disease; for whole pelvis, 5,000 rads, e.g., in cervical cancer; for limited pelvis, 6,000 rads, e.g., in bladder cancer; and for local perineal, 7,000 rads by rotation, e.g., in prostatic cancer. Note that as treatment volume increases, tolerance dosage decreases. (Redrawn from B. Roswit.)

long area of immobile bowel can produce symptoms of abdominal cramping, distention, nausea and vomiting, and constipation or obstipation consistent with intestinal obstruction. Stricture formation also will lead to a clinical picture of mechanical obstruction. The patient may develop peritonitis due to perforation or rectovaginal fistula.

The diagnosis of such complications is sometimes indistinguishable from the presence of recurrent cancer in the abdomen. Often, the diagnosis is determined only at the operating table or in the pathology department.

Proctitis can be diagnosed on proctoscopy, but a barium study (lower and upper gastrointestinal series) probably is the most productive of the diagnostic tools. The bowel transit time may be inordinately delayed; the mucosal lining may present a "saw-toothed" appearance or "thumbprinting" effect[18] similar to that seen in ischemic colitis. The patient may have puddling of barium in multiple skip areas with intervening segments of indistensible narrow bowel or a well-defined radiation stricture may be apparent.

## MANAGEMENT

In general, early cases of radiation enteritis respond satisfactorily to nonsurgical treatment. For sigmoid colitis and proctitis, a low residue diet, anti-spasmodics, stool softeners and general supportive measures are useful. In the more advanced cases, oral steroids as well as steroid enemas may be used.[19] Despite these conservative measures, if symptoms progress to the point at which the patient cannot continue with normal daily activities, the creation of a descending end colostomy may be required to alleviate the problem. Because of the progressive nature of this condition, these colostomies remain permanent more often than not.

The need for surgical intervention in cases of radiation bowel injury with complete bowel obstruction or perforation is obvious. However, there are many cases that respond sluggishly to conservative medical treatment and, as yet, show no clear justification for surgical exploration. It is within this "gray zone" that parenteral alimentation has gained such paramount importance.

Indeed, this aspect of management is of great benefit for almost all patients with radiation gut injury who eventually come to the operating room.

It is difficult to lay down rigid rules regarding

TABLE 3
FACTORS LEADING TO RADIATION INJURY OF THE GUT[7, 10, 15-17]

| | |
|---|---|
| Surgical | Previous pelvic or abdominal surgery — adhesions<br>Previous pelvic infections — adhesions<br>Trauma (perforation of uterus) at radium insertion |
| Medical | Diabetes — microcirculation impairment<br>Hypertension — low flow in mesenteric vasculature<br>Cardiac arrhythmia — low flow in mesenteric vasculature |
| Radiotherapy | Unconventional radiotherapeutic fractionation schemes<br>Overlap of adjacent radiotherapy portals — additive "hot spot" over mesentery<br>Retroverted uterus — radium system lying against sigmoid bowel<br>Excessive dose — massive central or vaginal disease |

the surgical treatment of cases of radiation bowel injury. Each case has to be individualized, and the most opportune time to make a decision concerning management is in the operating room. Opinions have oscillated between strong recommendations for wide bypass surgery and wide resection of radiated bowel. In recent years, surgeons have expressed a preference for wide resection, and the rapid development of extra-alimentary alimentation, undoubtedly, has influenced them in this regard. The following are a few principles that may be helpful to the operating surgeon:

1. Adhesions should not be lysed on an extensive basis unless the surgeon is committed to wide resection of bowel.
2. If commitment is to wide resection, the surgeon should remember that there is more disease than is grossly apparent.
3. If there is a loop of bowel that is stenosed or obstructed in a badly fibrosed pelvis, a bypass operation is preferable.
4. In selected patients such as those with enterovesical fistulae, exenterative surgery[20] may be both useful and necessary.

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## REPRINTS

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# In Memoriam

**Isadore Edward Goldberg,** M.D., Braymer Clinic, Braymer 64624; a graduate of the University of Kansas, 1930; member of Lafayette-Ray County Medical Society; age 73; died Nov. 3, 1978.

**Sylvester E. Pawol,** M.D., 11701 Old St. Charles Rd., Bridgeton 63044; a graduate of Creighton University, 1936; member of St. Louis Medical Society; age 66; died Nov. 3, 1978.

**Arthur Dean Markel,** M.D., Kneibert Clinic, Poplar Bluff 63901; a graduate of the University of Arkansas, 1943; member of Butler-Wayne-Ripley-Carter County Medical Society; age 66; died Nov. 10, 1978.

**Robert Jansen,** M.D., 440 E. 66th, Kansas City 64131; a graduate of New York University, 1915; member of Jackson County Medical Society; age 88; died Nov. 30, 1978.

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**John N. Martin, M.D.**

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Getting ready is a way of life for most of us. We get ready to go to bed, we get ready to shave, we get ready to eat breakfast, we get ready to go to the hospital or the office, we get ready to go to the movies or a medical meeting and, then . . . we get ready to go to bed. Seems that we are always getting ready, but each day we do something after we get ready.

But, are we ready for another year? Are we ready for another year of Jimmy and Joe?

Are we ready for Teddy?

Are we ready for NHI?

Are we ready for more regulations from HEW?

Are we ready to give 25% of our income to the federal government?

Are we ready for the political Pinocchios in Washington?

Are we ready to defend our profession?

Are we ready for more inflation?

Ready or not, here it comes. I doubt that many of us are ready for any of these things, but it's damn time to get ready.

As Adolph Monrad said, "Between the great things we cannot do and the small things we will not do, the danger is that we shall do nothing."

As they say, trying to solve the country's problem with congressional oratory is like trying to untangle a traffic jam by honking your horn. But we in the medical profession — if we believe in our profession — had better start blowing our horns . . . but loud.

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Why do I say . . . are you ready? Because the state legislature is getting ready to meet, and we had better be ready.

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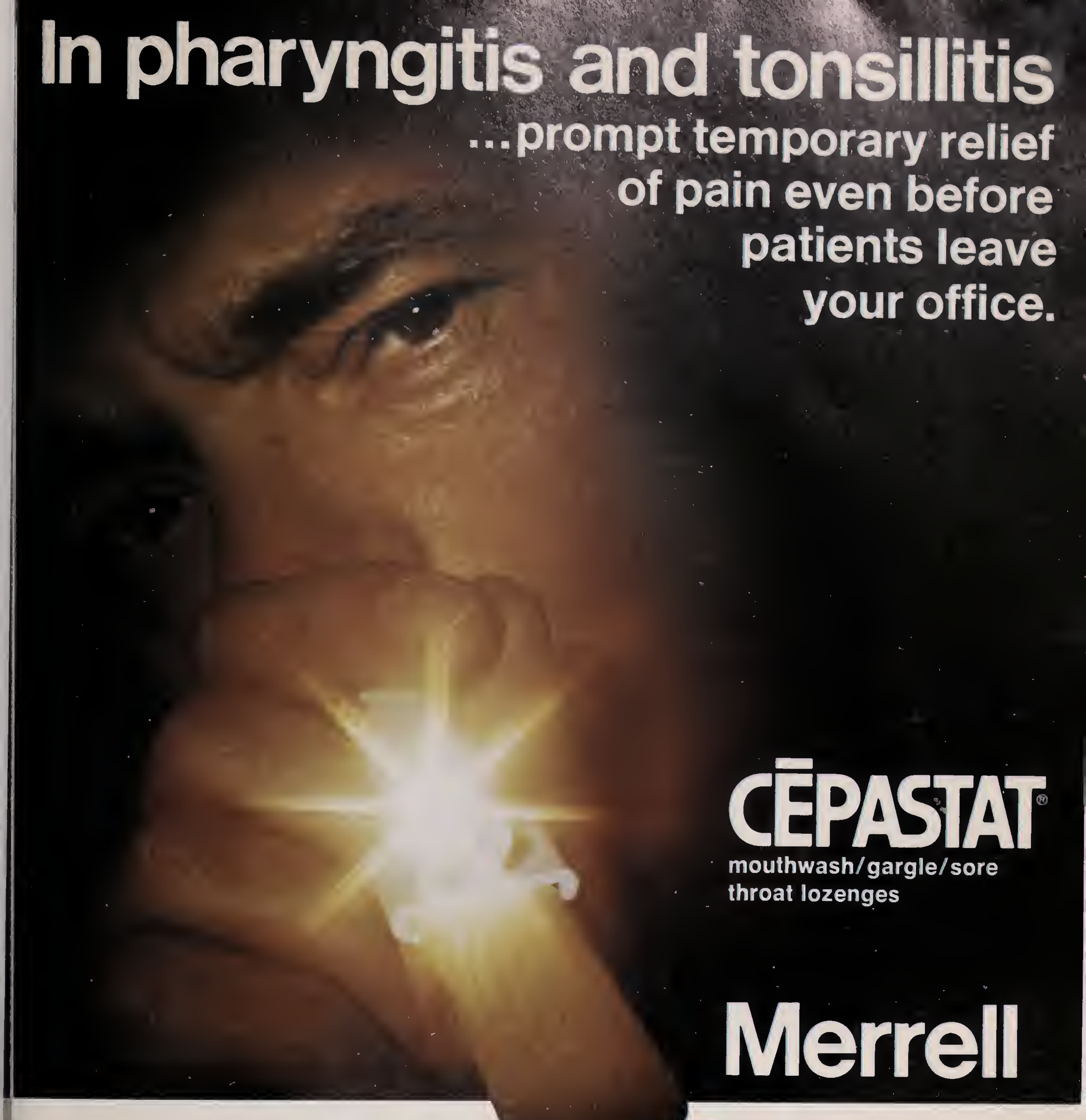

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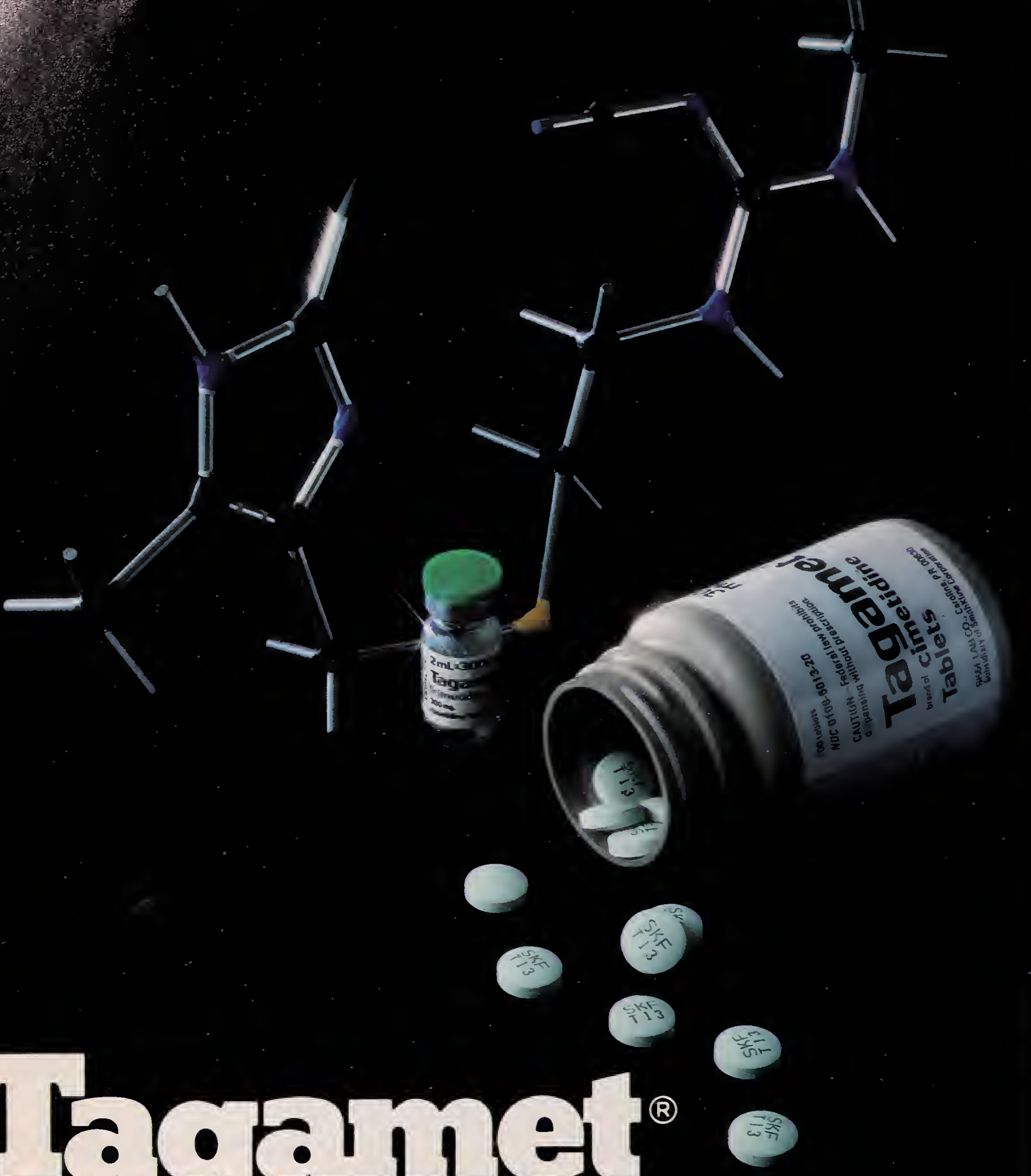
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**Mohammad Aftab Anwar,** M.D., 41 Gravois Rd., Fenton 63026, has become a member of St. Louis County Medical Society. Dr. Anwar is a native of India, received his preliminary education at D. J. Science College and his M.D. degree from the University of Karachi, Pakistan in 1968. He specializes in internal medicine and gastroenterology.

**John T. Ashley,** M.D., Truman Medical Center, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Ashley is a native of Boston, Mass., received his preliminary education at the University of Missouri and his M.D. degree at the University of Missouri in 1970. He specializes in preventive medicine.

**Roland S. Bassman,** M.D., 10374 Chimmey Rock, St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Bassman is a native of Philadelphia, Pa., received his preliminary education at Washington University and his M.D. degree at Washington University in 1937. He specializes in general practice.

**James C. Bobrow,** M.D., Washington University, St. Louis 63110 has become a member of St. Louis Medical Society. Dr. Bobrow is a native of New York, received his preliminary education at Yale University and his M.D. degree at the Johns Hopkins University in 1970. He specializes in ophthalmology.

**Sherman W. Cole,** M.D., 221 Plaza Time Bldg., 411 Nicholas Rd., Kansas City 64112, has become a member of Jackson County Medical Society. Dr. Cole is a native of Wellington, Kan., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1972. He specializes in psychiatry.

**Charles L. Davis,** M.D., 6919 Groveland, St. Louis 63121, has become a member of St. Louis Medical Society. Dr. Davis is a native of Petersburg, Va., received his preliminary education at Howard University and his M.D. degree at Howard University in 1942. He specializes in obstetrics and gynecology.

**Sheldon L. Davis,** M.D., 11155 Dunn Rd., St. Louis 63136, has become a member of St. Louis Medical Society. Dr. Davis is a native of Detroit, Mich., received his preliminary education at the University of Michigan and Wayne State University and his M.D. degree at the University of Michigan in 1973. He specializes in otolaryngology.

**Michael L. Eisenstadt,** M.D., 11155 Dunn Rd., St. Louis 63136, has become a member of St. Louis County Medical Society. Dr. Eisenstadt is a native of Carbondale, Pa., received his preliminary education at the University of Scranton and his M.D. degree at New York University in 1974. He specializes in neurology.

**Edduyn A. Figueroa,** M.D., 522 No. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Figueroa is a native of Guatemala City, Guatemala. He received his M.D. degree at the University of San Carlos of Guatemala in 1970 He specializes in child psychiatry.

**Linda A. Fisher,** M.D., 5505 Delmar, Suite 503, St. Louis 63112, has become a member of St. Louis Medical Society. Dr. Fisher is a native of Plainfield, N. J., received her preliminary education at Douglass College and her M.D. degree at Harvard University in 1975. She specializes in internal medicine.

**Richard B. Freeman,** M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Freeman is a native of Cleveland, Ohio, received his preliminary education at Ohio University and his M.D. degree at Case Western Reserve University in 1975. He specializes in otolaryngology.

**Thomas F. Green,** M.D., 2116 South Sterling, Independence 64052, has become a member of Jackson County Medical Society. Dr. Green is a native of Stockton, Calif., received his preliminary education at Creighton University and his M.D. degree at Creighton University in 1974. He specializes in obstetrics and gynecology.

**Richard Gutknecht,** M.D., 2116 S. Sterling, Independence 64052, has become a member of Jackson County Medical Society. Dr. Gutknecht is a native of Waterloo, Iowa, received his preliminary education at the University of Colorado and the University of New Mexico and his M.D. degree at the University of New Mexico in 1974. He specializes in obstetrics and gynecology.

**Paull R. Hanson,** M.D., 1111 Woods Mill Rd., Ballwin 63011, has become a member of St. Louis County Medical Society. Dr. Hanson is a native of Berlin, Wis., received his preliminary education at the University of Iowa and his M.D. degree at the University of Iowa in 1955. He specializes in aerospace medicine and occupational medicine.

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**Sumer Chand Jain,** M.D., 1203 DePaul Dr., Bridgeton 63044, has become a member of St. Louis Medical Society. Dr. Jain is a native of India, received his preliminary education at Remedical-Delhi University and his M.D. degree at M.G.M. Medical College in 1955. He specializes in anesthesiology.

**Larry P. King,** M.D., 601 S. Brentwood, St. Louis 63105, has become a member of St. Louis Medical Society. Dr. King is a native of Memphis, Tenn., received his preliminary education at Austin College and his M.D. degree at the University of Texas in 1974. He specializes in internal medicine.

**Jack R. Lichtenstein,** M.D., 1402 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Lichtenstein is a native of Baltimore, Md., received his preliminary education at the University of Maryland and

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his M.D. degree at the University of Maryland in 1967. He specializes in medical genetics, rheumatology and dermatology.

**S. K. Mehra,** M.D., 6651 Chippewa, Suite 318, St. Louis 63109, has become a member of St. Louis Medical Society. Dr. Mehra is a native of New Delhi, India, received his preliminary education at Delhi University and his M.D. degree at the India Institute of Medical Sciences in 1973. He specializes in internal medicine and cardiology.

**David W. Meltzer,** M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Meltzer is a native of Brooklyn, N. Y., received his preliminary education at Princeton University and his M.D. degree at the University of Miami in 1975. He specializes in ophthalmology.

**Robert F. Munsch,** M.D., 3660 Vista, St. Louis 63110, has become a member of St. Louis Medical Society. Dr. Munsch is a native of St. Louis, received his preliminary education at the University of Colorado and his M.D. degree at St. Louis University in 1977.

**Lawrence Stephen Narkiewicz,** M.D., 12166 Big Bend, St. Louis 63122, has become a member of St. Louis County Medical Society. Dr. Narkiewicz is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1970. He specializes in internal medicine.

**Charles A. Nester,** M.D., 615 S. New Ballas, St. Louis 63141, has become a member of St. Louis Medical Society. Dr. Nester is a native of St. Louis, received his preliminary education at Boston College and his M.D. degree at the University of Missouri in 1976. He specializes in family practice.

**Robert F. Rauktis,** M.D., St. Luke's Hospital, Dept. of Radiology, 44th and Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Rauktis is a native of Huntington, Ind., received his preliminary education at Kansas College and his M.D. degree at Kansas University in 1976. He specializes in radiology.

**M. V. Reddy,** M.D., 5400 Arsenal St., St. Louis 63139, has become a member of St. Louis Medical Society. Dr. Reddy is a native of India. He received his M.D. degree at Osmania University in 1966. He specializes in neurology and psychiatry.

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★

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# *New Members*

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**Edwin Henry Schmidt, III,** M.D., 1035 Bellevue, St. Louis 63117, has become a member of St. Louis County Medical Society. Dr. Schmidt is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine.

**Raymond Sleiman,** M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Medical Society. Dr. Sleiman is a native of Lebanon, received his preliminary education at Oriental College and his M.D. degree at St. Joseph University in 1972. He specializes in urology.

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POSITION WANTED — Diagnostic radiologist, American born, educated and trained. Qualified in general diagnosis, angiography, CT scanning, ultrasound and nuclear medicine. Passed written and physics, eligible for oral boards June, 1979. Available July 1, 1979. Please reply to Baptist Medical Center, Oklahoma, Department of Radiology, P.O. Box 100, Oklahoma City, Oklahoma 73112.

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ESTABLISHED GENERAL PRACTICE — For sale. In West St. Louis County (Ballwin). Three fully equipped treatment rooms, private office, laboratory, reception room and business office. Retiring due to health reasons. Will stay to introduce. Write to box 450, Missouri State Medical Association, P.O. CA-Box 1028, Jefferson City, Mo. 65102.

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FOR SALE — Complete set of abdominal surgical instruments, including retractors. Excellent condition. Reasonably priced. Write to Box: CA-449, Missouri State Medical Association, P.O. Box 1028, Jefferson City, Mo. 65102.

FAMILY PRACTICE — Solo Board Certified family practitioner is seeking a family practice associate in growing community 6 miles north of Kansas City International Airport. Contact, Carl M. Myers, M.D., Platte Medical Clinic, Platte City, Mo. 64079. (816) 431-2200.

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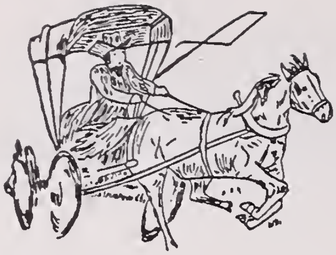

# Missouri Medicine in Review

**LEO H. POLLOCK, M.D.**

## FORTY YEARS AGO

The cornerstone of the Ellis Fischel State Cancer Hospital in Columbia will be laid on December 9 at 1:30 P.M. Members of the medical profession are invited to attend the ceremony by the State Cancer Commission. The principal speakers will be the Honorable Lloyd C. Stark, Governor of Missouri, and Dr. Clarence C. Little of New York, director of the American Society for the Control of Cancer and a member of the National Advisory Cancer Council.

"It has been just 25 years since Anitschow's classic rabbit experiments focused attention upon the role of cholesterol in the pathogenesis of human arteriosclerosis. Despite the fact that there is no evidence of any sort which might warrant the belief that death from arteriosclerosis and its complications is even remotely associated with fat or cholesterol consumption, there has been a regrettable tendency in recent years to restrict consumption of foodstuffs containing them."

Construction of the new state Trachoma Hospital will start on November 29. This new $138,000 structure will occupy a three-acre lot adjoining the city of Rolla. Citizens of Rolla donated the property. A federal grant of $63,000 will supplement the $75,000 appropriated for this purpose by the State Legislature during the last session.

There are certain sections of the United States in which pneumonia mortality is excessively high. Missouri constitutes one of these areas.

## TWENTY-FIVE YEARS AGO

Claude J. Hunt, M.D., Kansas City, writes the following about the recent death of Dr. Frank H. Lahey:

"He stood in the field of surgery like a giant oak in the forest of surgical advancement. Great men in life are like the tremendous trees that stand out and tower above all others. He stood as a giant in the field of surgery and all who passed his way stopped to admire and revere. As a surgeon with an almost endless list of contributions to surgical progress, his influence has been great for many years. Few there are who have contributed so much to surgical advancement and stimulated so many in surgical thought. His mind constantly was seeking new approaches to surgical problems and new conceptions of the effect of disease."

A bronze plaque and the title of "Doctor of the Year" were presented to A. J. Singnorelli, M.D., Clayton, by the Unico Society, a national organization composed of citizens of Italian extraction.

Justine J. Cordonnier, M.D. has joined the full-time faculty of the Washington University School of Medicine. He assumed his duties on July 1 as professor of urology and head of the Section of Urology of the Department of Surgery.

## TEN YEARS AGO

The Mineral Area Medical Society met in the Hoctor Building in Farmington on September 26. Members present were Drs. Jack Mullen, Stanton Hardy, C. H. Appleberry, Robert A. Huckstep, Alvan G. Karraker, Charles W. Chastain and F. Richard Crouch.

The Lincoln-St. Charles County Medical Society met at the Dardenne Country Club in St. Peters on September 24. Dr. Vincent P. Perna was elected president for 1969 and Dr. Earl J. Wipfler was elected secretary.

The Lafayette-Ray County Medical Society meeting was held at Maib's Cafe in Lexington on September 10. Fifteen members and guests were present. The following officers were elected for 1969: president, Dr. Joe Ward, Lexington; president-elect, Dr. W. E. Koppenbrink, Higginsville; and secretary-treasurer, Dr. Wayne Boydston, Odessa.

The annual election meeting of the Buchanan County Medical Society was held at the Hoof and Horn Restaurant in St. Joseph on October 2. Officers elected were Drs. O. W. D. Craig, president-elect; Sharon E. Waggoner, vice-president; Lawrence H. Pifer, secretary; and Robert W. Kieber, treasurer.

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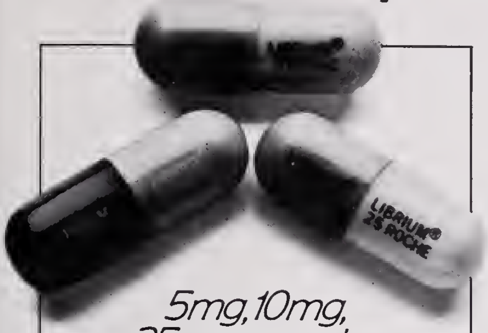
## *chlordiazepoxide HCl/Roche*



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**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

**Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Usual Daily Dosage:** Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

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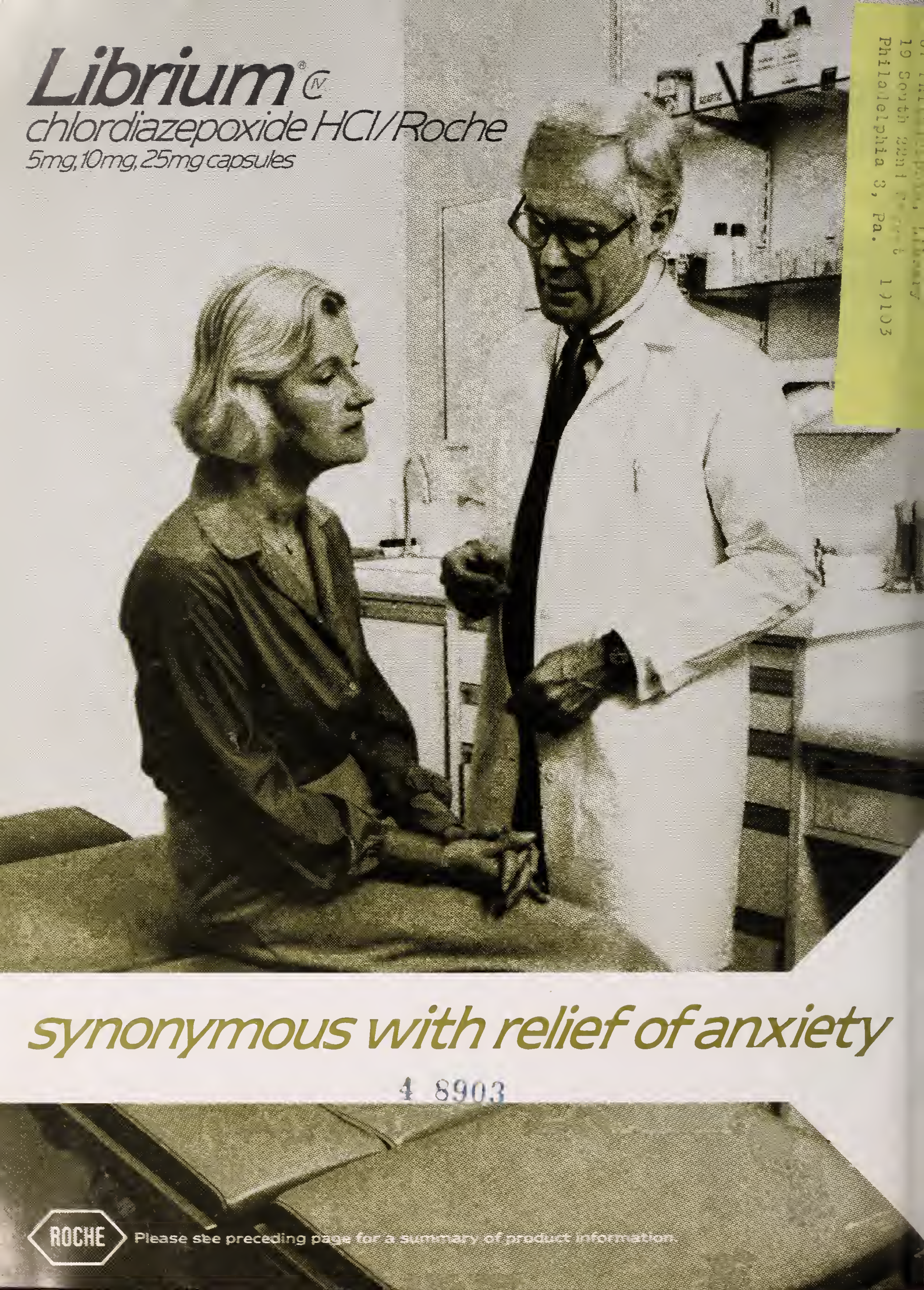

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